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THE AMERICAN

ELEVATOR AND

GRAIN TRADE

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One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XLVIII

431 South Dearborn Street, Chicago, Ill., April 15, 1930

NO. 10

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We want your business but we want it on a basis that will pay you as well as ourselves. We want it because we have proper facilities for handling it.

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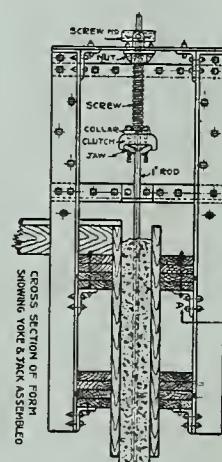
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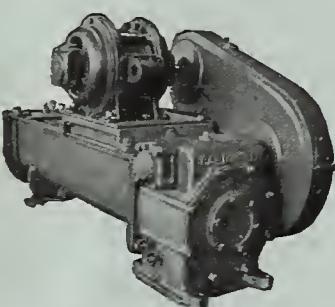
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SCOOP TRUCK
CAPACITY { 200 Lbs. Coal
2½ Bushels Grain

Can easily add Twenty-five cents an Hour to the value of a man's time who uses it in unloading Coal or Grain from box cars.
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There will be 10 elevator legs with a capacity of 25,000 bushels per hour, and in addition to this, the belting equipment will include 20 belts 42" wide, each with a capacity of 25,000 bushels per hour.

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*Is Fully Equipped with WEBSTER transmission
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*WEBSTER equipment is patterned with care and well designed,
and the most durable that can be manufactured
It is the standard for elevator equipment.*

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The names of Webster and Weller have been familiar to the grain trade as manufacturers of high grade machinery. During this period most of the large, as well as the smaller elevators have depended on us for their elevating, conveying and power transmitting machinery.

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JUST BECAUSE ITS ECCENTRICS
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That Sensational, 100% success, the

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Take off your present eccentric shaft assembly; remove the post boxes, eccentric shaft, eccentrics and connecting rods; then substitute a Buhler Drive.

No matter how large the Shoe the Buhler Drive will run it with a belt one inch wide and 1/10 to 1/4 H. P.

**After you have seen a Buhler Drive in action,
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any ordinary grain cleaner driven by eccentrics**

"Eureka" and "Invincible" Separators equipped with the Buhler Drive become the basic standard of efficiency in the realm of grain cleaning equipment.

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GRAIN

CLEANING

MACHINERY

**CLEAREST CLEANING
INVINCIBLE CLEANERS**

QUALITY

This Mill Ground More Oats Than Were Ever Ground Before

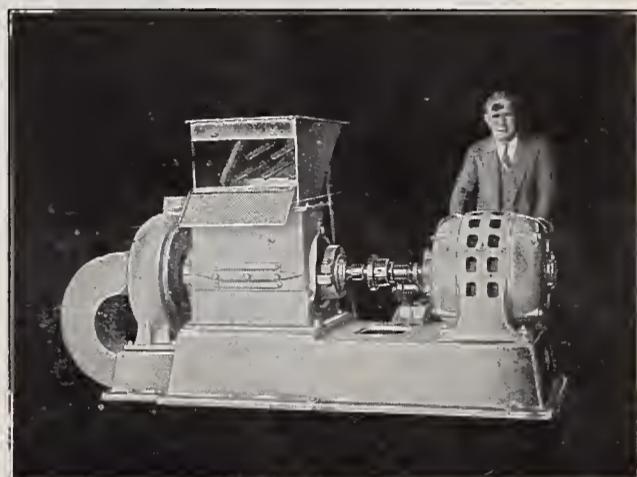
Costs 35c per ton per year.

A No. 3 Super Miracle Ace Hammer Mill ground oats at the rate of twenty two hundred pounds per hour through a 1/16" screen with a 50 h.p. motor using only 1.56 K.W. of electricity per hundred pounds.

No other hammer mill has ever before or since ground oats through a 1/16" screen using so little horsepower. The Nielsen Engineering Company Survey No. AM-51-WM tells of this remarkable performance. Ask for it.

35c per ton average per year.

A. Grams & Sons at La Crosse, Wisconsin, using the same size Miracle Ace Hammer Mill with an electric rate from six to two cents per K.W. ground all kinds of feeds—oats, ear corn, barley, alfalfa, etc. with an average for one year of only thirty-five cents per ton.

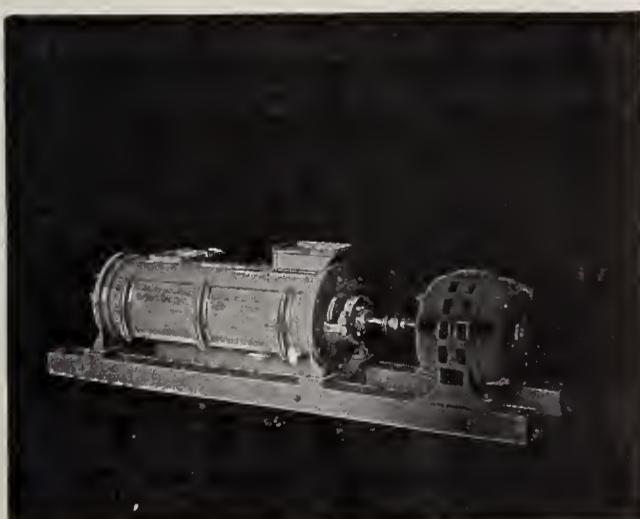


The profits you make always depend on what it costs you in horse power, or K.W. of electricity to grind 100 pounds of any material. The Miracle Ace Hammer Mill will give you the largest profit.

Ask for booklet describing this unusual hammer mill. It's called "THE ONLY WAY TO MAKE FEED."

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You can make and sell all of the sweet, or molasses, feed sold in your community. It's just as easy to make the best of sweet feeds as it is to grind feed.



This is No. 1 size, capacity 2500 pounds per hour. We build it in five standard sizes up to 20,000 pounds per hour, then in any capacity to order.

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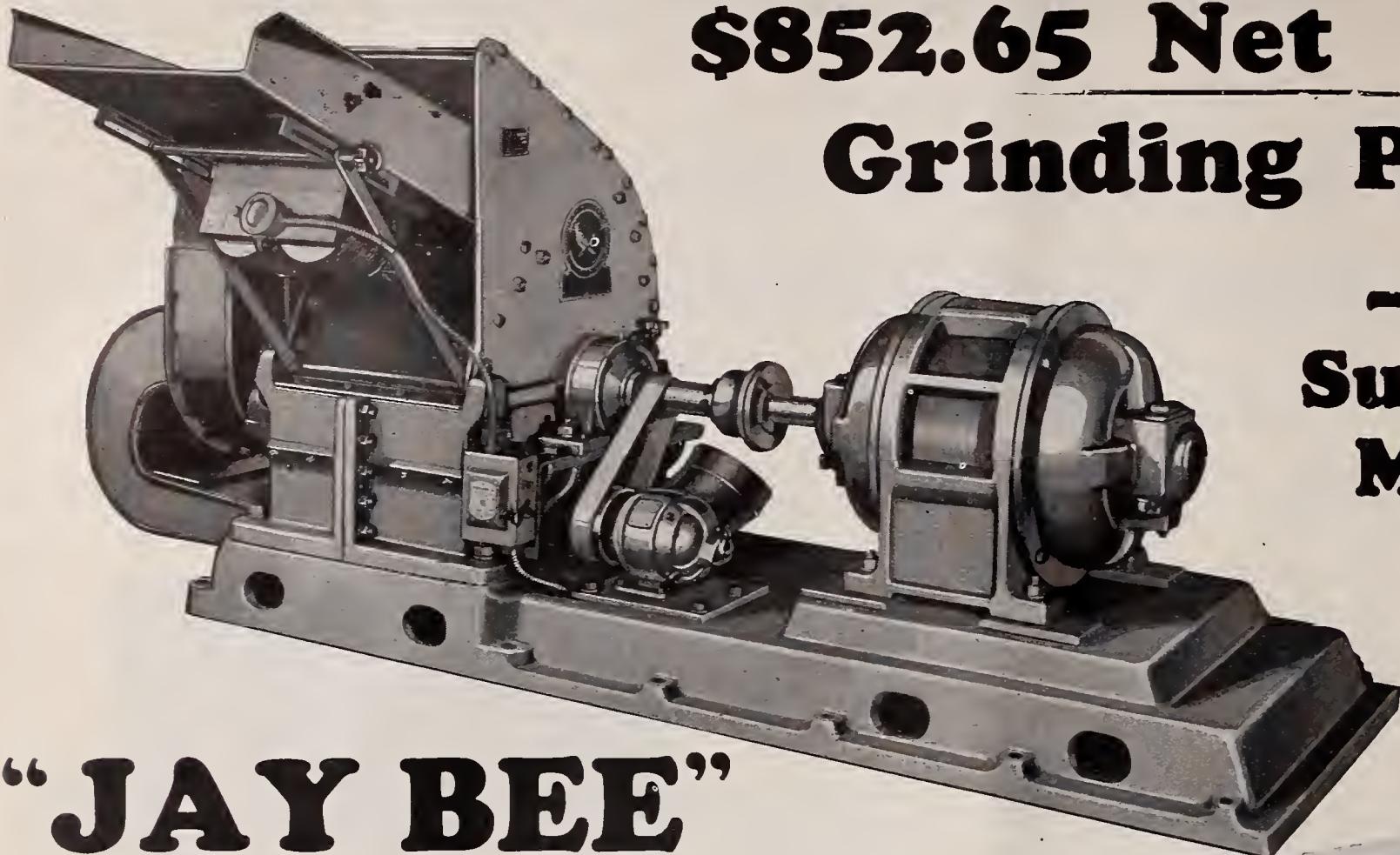
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Only quality grinding—"Jay Bee" grinding—can stimulate such a demand. And on that basis, a "Jay Bee" will pay for itself many times a year.

Over 13,000 "Jay Bee" Mills in use—proof that "Jay Bee" leads 'em all—Outgrinds 'em all—Outsells 'em all—Outlasts 'em all. Get your "Jay Bee" now if you want real grinding profits.

The "Jay Bee" is made in sizes and styles to meet every grinding requirement: from 12 H.P. to 100 H.P. for belt, V-belt and direct-connected drives. WRITE for literature and complete details.



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The only Molasses Mixer made that will mix cold molasses in any proportion without balling the molasses. As nearly perfect as science and mechanical skill can produce. Its efficiency and capacity are in keeping with the undisputed superiority of the World Famous "Jay Bee" mill.



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CAST IRON OR
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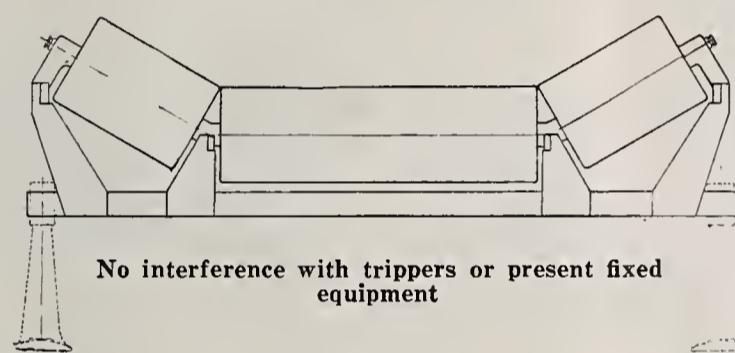
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No interference with trippers or present fixed equipment

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Save 50% in power.

Cut cost of maintenance and lubricant expense to almost the vanishing point.

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Use lighter duck and fewer plies in new belts.

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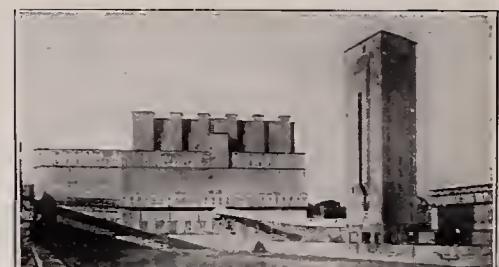
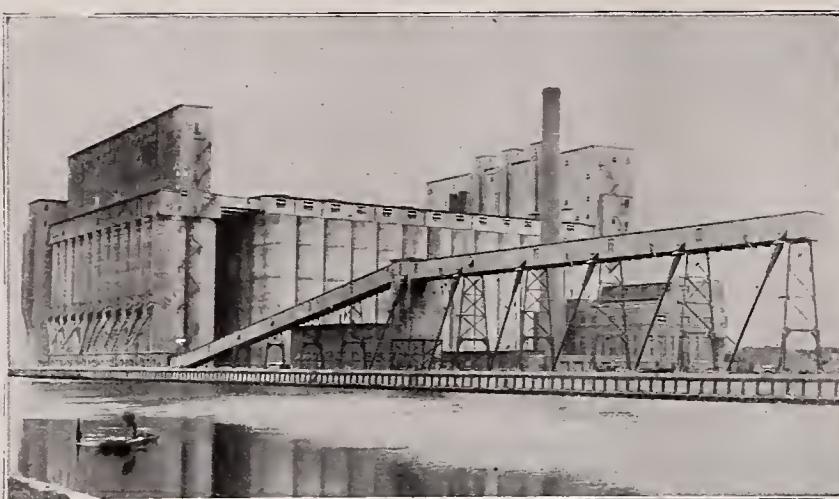
Chicago, Illinois



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Completed 1914



Buenos Aires Elevator Co.
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Capacity 750,000 Bushels
Completed 1920



Harbour Commissioners Elevator No. 2
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Sydney Terminal Elevator
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Completed 1921



Chicago & North Western Railway Elevator
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Capacity 10,000,000 Bushels
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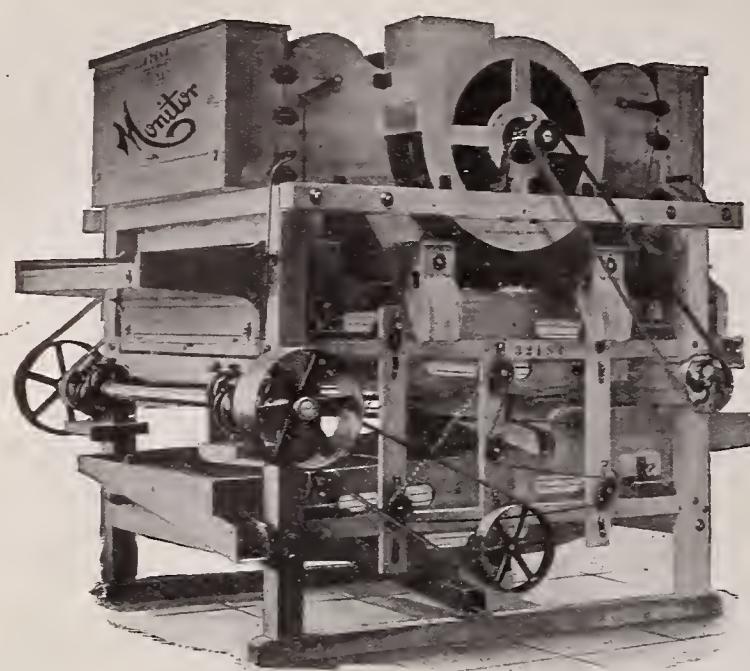


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2,500,000 Bu. Elevator

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*DESIGNED for the years
ahead—an advance we
propose to maintain.*



It Does Its Job

and that is what you are paying for.

The MONITOR Flax Cleaner is a machine, that once shipped, never brings a complaint. It does its work from the first moment and turns out flax seed 98% pure with the minimum of shrinkage. In other words, it distinguishes between Flax Seed and refuse and your screenings from it are not full of good stock.

If you need a Flax Seed Cleaner, you need the MONITOR. Write us.

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Have all the advantages and flexibility
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Simple to Install Simple to Operate Automatic

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Besides the liberal direct profit the dealer makes, he has a remarkable business builder when he sells

Semi-Solid Buttermilk

He does make a direct profit and a good liberal one on every pound of Semi-Solid Buttermilk he sells. Besides that profit, he is adding prestige to his entire business and he is building sales that will give him a splendid year round business. Every dealer who handles this product is making friends and creating a continuous stream of new customers because of the fact that Semi-Solid Buttermilk protects the health and increases the production for everyone of your patrons who feed it to their poultry, turkeys, hogs and calves. It makes money

for them and when they once use it and know its value to their poultry and live stock

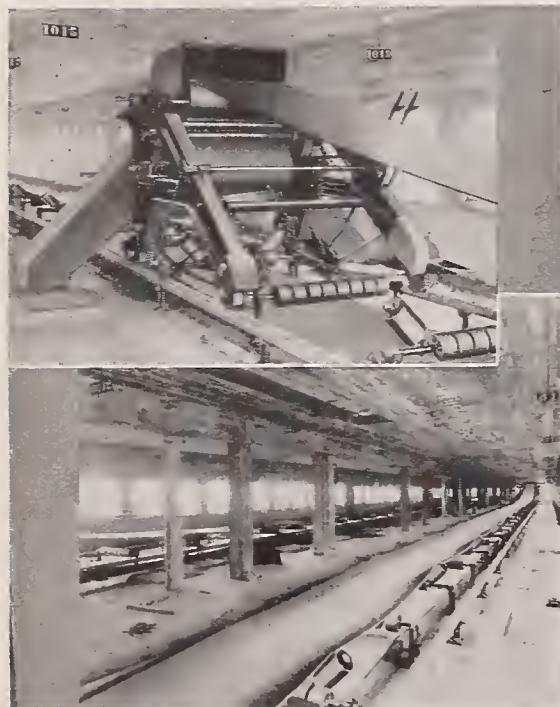
They Always Come Back for More—
and they tell their neighbors and friends about it and they, too, will come to your store because they are anxious to profit by its use.

The merit of Semi-Solid Buttermilk is too valuable to your business to be overlooked. It is a profit maker, a business builder that helps the other feeds you handle, make good.

SEMI-SOLID BUTTERMILK is endorsed by Government Authorities, Experimental Stations, and best of all, by thousands of satisfied and successful farmers and feeders, who have fed it under all conditions for the past seventeen years. It makes staunch friends because it turns losses into profits for your customers.

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EHRSAM TIMKEN-BEARING EQUIPPED CONVEYORS

and

HEAVY-DUTY SELF-PROPELLING TRIPPERS

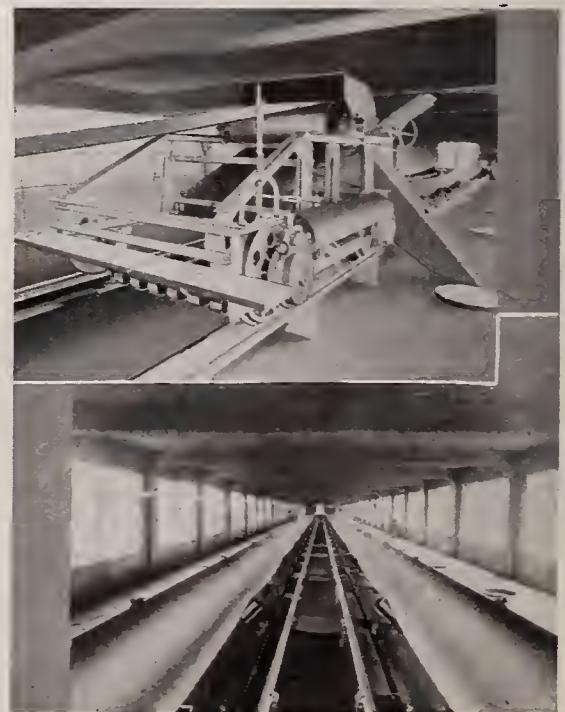
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Never in the history of the seed business has the retailer of field seed had the opportunity to apply these modern merchandising methods to his business.

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- 2—A complete line of Warren Processed field seeds in three great price ranges with the highest possible quality of seed in each.
- 3—A retail selling plan that will build satisfied customers for you.
- 4—An exclusive dealership plan that protects you against unfair competition and price cutting.

Put these tools to work for you this year. They cost you nothing and will help you to earn a most unusual profit in your Seed Department.

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THIS huge separation tube is the heart of the Warren Process. In this tube the strong pure seed is separated from the weeds and weak germinating seeds. The pure seed is removed, dried to exactly the right moisture content and delivered to you—99 90/100% Pure Crop Seed with less than $\frac{1}{2}$ of one per cent other crop.

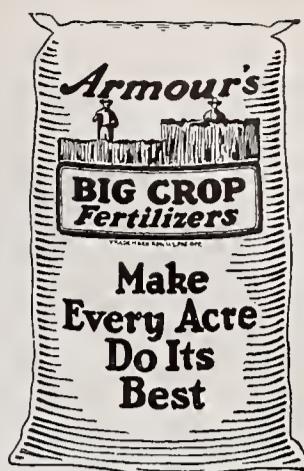
You make larger profits from this seed but more than that, you build satisfied, prosperous customers that will come back next year and year after year for more Warren Processed seed.

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TO THE



ARMOUR FRANCHISE

ONCE you get the right to sell Armour's Big Crop High-Analysis Fertilizer, you'll fight tooth and nail to hold it. For you'll not only make a profit just from the sale of Big Crop, but you'll actually get better grain for your elevator! It'll be plump—better-colored—grade higher and there'll be more of it. And Big Crop will bring it in earlier too!

It took thirty-five years to get the Big Crop formulas where they are today. Thirty-five years of testing and trying . . . of figuring out exact proportions. All materials are fresh and active in every bag of Big Crop. It speeds up growth—feeds the crop—and rushes it through to maturity. And, moreover, Big Crop drills! Think how your farmers will like that during the rush of planting.

There's no wonder that Armour dealers who have the Armour Franchise hang on to it for dear life. It's a guarantee of steady repeat business. And a business that's continually increasing. For as the news spreads that you've got Big Crop, you can count on more farmers wanting it! They'll take the name "Armour" for all it's worth—and the Big Crop results will show they're not wrong!

Send the coupon for full details about the Armour Franchise, and how you can become an Armour Big Crop dealer. Mail it today!

ARMOUR FERTILIZER WORKS
Dept. 124, 111 West Jackson Blvd., Chicago, Ill.

Gentlemen: Without obligation to me, I should like to learn how I can make more profits selling your fertilizer. Please send me free complete information about your dealer franchise and dealer helps.

Name _____

Company _____

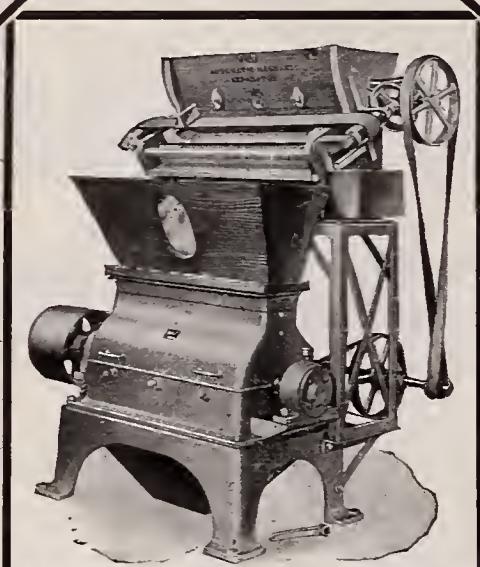
Address _____

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Offices and factories centrally located in all sections of the country

Armour Fertilizer Works
General Offices: Chicago, U. S. A.

MORE LIGHT ON FEED MILL PROFITS



Many feed mill operators have been guided to the more profitable milling of scratch feeds through the assistance of the Wolf Rotary Cutter.

It provides maximum, clean-cut grain with minimum meal and delivers a finished product with less power in one operation.

It is inexpensive to install and highly economical in operation.

It provides true shearing action and allows for a change of knives and screens in a few minutes, not hours. It never needs adjustment.

To successfully meet present day progress and competition in the production of scratch feeds the answer is—The Wolf Rotary Cutter.

THE WOLF COMPANY

68 Commerce St., Chambersburg, Pa.

Manufacturers of a complete line of flour and feed mill machinery.

Offices and Representatives throughout the United States.

THE WOLF COMPANY, 68 Commerce Street, Chambersburg, Pa.

Please send me more information on the Wolf Rotary Cutter mentioned in your advertisement in the April 15th issue American Elevator & Grain Trade.

Name

Address

City

State

INTERNATIONAL ---a Good Old Name Among Twine Buyers



*Here Is a Profit
Opportunity for
Grain Merchants*

IN these days of diversified marketing, it pays to give serious thought to volume-building lines that can be sold at a profit without adding materially to your investment. INTERNATIONAL TWINE is such a line.

The farm public knows INTERNATIONAL TWINE and has confidence in it. They buy it almost without urging—and there are no come-backs; the high quality takes care of that.

Because International Harvester branches—carrying full stocks of INTERNATIONAL TWINE—are so conveniently located, you can successfully sell this twine out of very limited stocks. Supplementary supplies can always be obtained from the branch on short notice.

If there is no one in your town selling INTERNATIONAL TWINE, get in touch with the International traveler, the nearby branch, or write direct to us at Chicago, and ask for information covering the INTERNATIONAL TWINE contract.

You'll find it a very easy matter to place a good volume of this high-quality twine among your friends and customers, *at a good profit!*

INTERNATIONAL HARVESTER COMPANY

606 S. Michigan Ave.

of America
(Incorporated)

Chicago, Ill.

**International
“BIG BALL”
TWINE**

Guaranteed for Length, Strength, and Weight
Treated Against Destruction by Insects

SPECIFICATIONS

When specifications are being drawn up for Elevators having a storage capacity of a quarter of a million bushels or more it is expected that grain will be carried in the bins for weeks and possibly months at a time. You can preserve the life of your conveyor belts, motors and machinery by installing the

ZELENY THERMOMETER SYSTEM

the specifications should require the contractor to include in his proposal the installation of bin floor fittings and conduit for the

ZELENY SYSTEM

and submit separate price for the System installed complete; our price to the contractor and to you is the same and the contractor as a general rule adds nothing to the price for commission as he is interested in the system being installed as an added protection and an economy in operating costs.

We are of the opinion that a greater part of that One Million Two Hundred and Forty-seven Thousand bushels of Wheat that went out of condition could have been saved by the

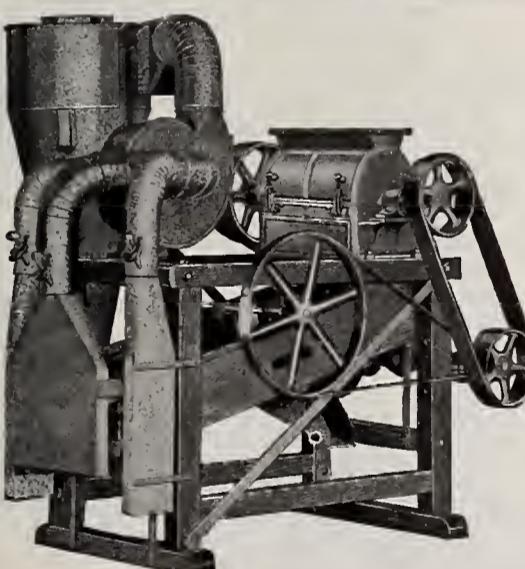
ZELENY THERMOMETER SYSTEM

• • •

ZELENY THERMOMETER COMPANY

542 S. Dearborn St.
Chicago, Ill.

Easy to
Install



Makes Three
Distinct
Grades of
Quality Steel
Cut Corn

Requires
Little
Space

Produces
Small Quan-
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The Ball Bearing Top and Bottom Screen Monarch Corn Cracking Outfit

Five machines in one designed to produce steel cut corn (three grades) of unsurpassed quality. Equipped with Monarch Patented Top and Bottom Screen Cutter, three sieve grader aspirating legs, metal fan and dust collector. Driven by one main belt, easy to install, takes little space and requires very little power to operate.

A quality machine that makes a quality product and priced to make it a profitable investment for every mill and elevator.

Write for new booklet

MONARCH **Sprout, Waldron & Co.**
1203 SHERMAN ST., MUNCY, PA.
THE MONARCH MILL BUILDERS

Chicago Office
9 S. Clinton St.

Kansas City Office:
612 New England Bldg.

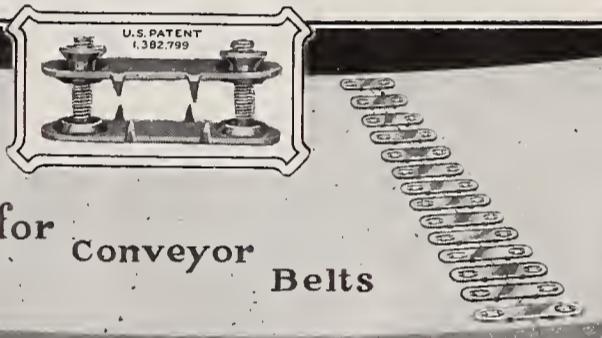


FLEXCO

HD Belt Fasteners

These well known fasteners stop trouble with elevator and tight butt conveyor joints. They have far more strength than needed and the pull is equalized on both sides of the belt insuring long service. Note recessed plates which embed in and compress the belt instead of pulling against the bolt holes. Stocked by leading jobbers in 5 sizes. Consultation invited.

Flexible Steel Lacing Company
4627 Lexington Street
Chicago, Illinois
Recommended by leading belting manufacturers



A Perfect WORM GEAR HEAD DRIVE AT VERY REASONABLE PRICES



Union Iron Works, Decatur, Ill.



COULD YOUR SCALE

handle a load like this?

To be accurate, today's scales must be built to handle *unbalanced* loads! 65 to 90 per cent of the load in motor trucks is concentrated on the rear wheels. Scales built to weigh wagons cannot weigh motor truck loads accurately.

Protect yourself by using Fairbanks Type "S" Auto Truck Scales—*built* for unbalanced loads. Correct weight is registered regardless of where the load is concentrated. Designed to stand the strain of trucks starting and stopping. The "center loading" feature of all levers in the Fairbanks Type "S" insures accurate weighing regardless of distribution on the platform. (See explanation in panel.)

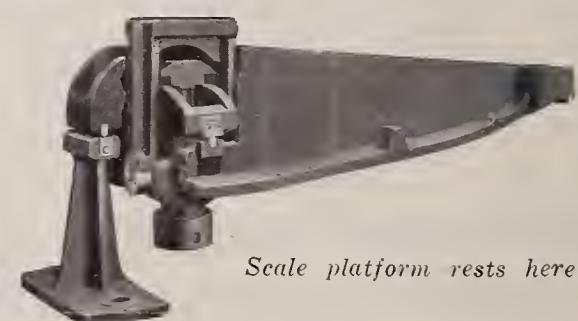
You'll find that Type "S" Scales reduce errors. Weight is indicated instantly on big, double-face dials—easy to see from truck and office. No poise juggling. No calculating. Concrete deck protects scale as effectively as a scale house. Write for complete information.



Illustrating how loads carried in motor trucks are concentrated on the rear wheels. Special scales are required for weighing motorized loads.

See how "center load" construction keeps Type "S" Scales accurate

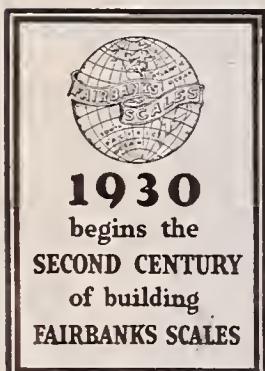
When scale levers are twisted, even a fraction of an inch, accuracy is destroyed. Fairbanks Type "S" Scales stay accurate and last a lifetime because "center load" construction—a flexible combination of parts suspended between a box lever—always carries the load on the *center line* of the lever. Regardless of where the load is applied, there is no tendency to tip or twist the lever as is the case when other types of levers are used. Free platform movement is permitted without scraping the knife-edges across the bearings. Knife-edges stay parallel. "Center load" construction is used on *all* levers of Type "S" Scales.



Scale platform rests here

A flexible combination of elements allows platform movement in any direction. But regardless of how loaded, weight is transmitted to the center line of the lever.

FAIRBANKS, MORSE & CO.
900 S. Wabash Ave., Chicago
And 40 principal cities—a service station at each house



Fairbanks Scales

Preferred the



World Over

A monthly journal devoted to the elevator, grain, hay, feed and seed interests.

Official paper of the Illinois Grain Dealers Association.

Established in 1882.

THE AMERICAN ELEVATOR AND GRAIN TRADE



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year. English and Foreign subscription, \$1.75 per year.

Established in 1882.

VOL. XLVIII

CHICAGO, ILLINOIS, APRIL 15, 1930

NO. 10

C. C. Isely Makes First Impressions Count

WORKING on the theory that first impressions are lasting, C. C. Isely, chief official of the new 500,000-bushel I. C. Terminal elevator at Dodge City, Kan., decided that the first public glimpse of the new elevator would be both lasting and favorable. Consequently, he planned an elaborate dedication ceremony that included addresses by prominent grain men from various sections of the country, trips through the plant, and even a barbecue luncheon.

Looking at the project from an impartial angle, one might be inclined to dispute the claim that the erection of this grain elevator in Kansas, where there are already facilities for storing more grain than there are in any other state, was an incident of great importance. But there lies the trouble with impartial glances—their very impartiality limits their enthusiasm, and often even their accuracy.

To the citizens of Dodge City—and there are about 5,500—the completion of the new \$180,000 grain establishment of the Southwest last February was a noteworthy event. And well it might be, for the plant, which is operated by the C. C. Isely Lumber Company, Inc., is modern in every respect. Power is supplied throughout the plant by nine Fairbanks Morse Electric Motors. The structure is of reinforced concrete, the work of the Jones-Hettelsater Construction Company of Kansas City, Mo., and is equipped generally with Erhsam machinery operated by both chain and belt drives. Receiving devices include a huge power shovel and a hopper scale of Fairbanks' make.

The opening of the new plant made necessary an increase in the state grain staff at Dodge City, a weighmaster being added whose office is in the new elevator. The other grain official is Jack Graham, inspector.

Just prior to the official opening, H. B. Johnson,

The Dedication of an Elevator

◆ ◆ ◆

chief state grain inspector, was taken on a tour throughout the plant and was very enthusiastic in his praise. He declared it one of the best-equipped elevators in the United States as it had been built to conform to the best practices of the industry, adding, "You have something to be mighty proud of here."

He also found words to praise the Dodge City

that publicity is the root of all business, Mr. Isely did not let them fall on his ears alone but saw that the local papers carried a complete record of them on the following day. And as a result, he undoubtedly doubled the opening-day attendance for people will travel a remarkable distance to hear their towns and themselves praised.

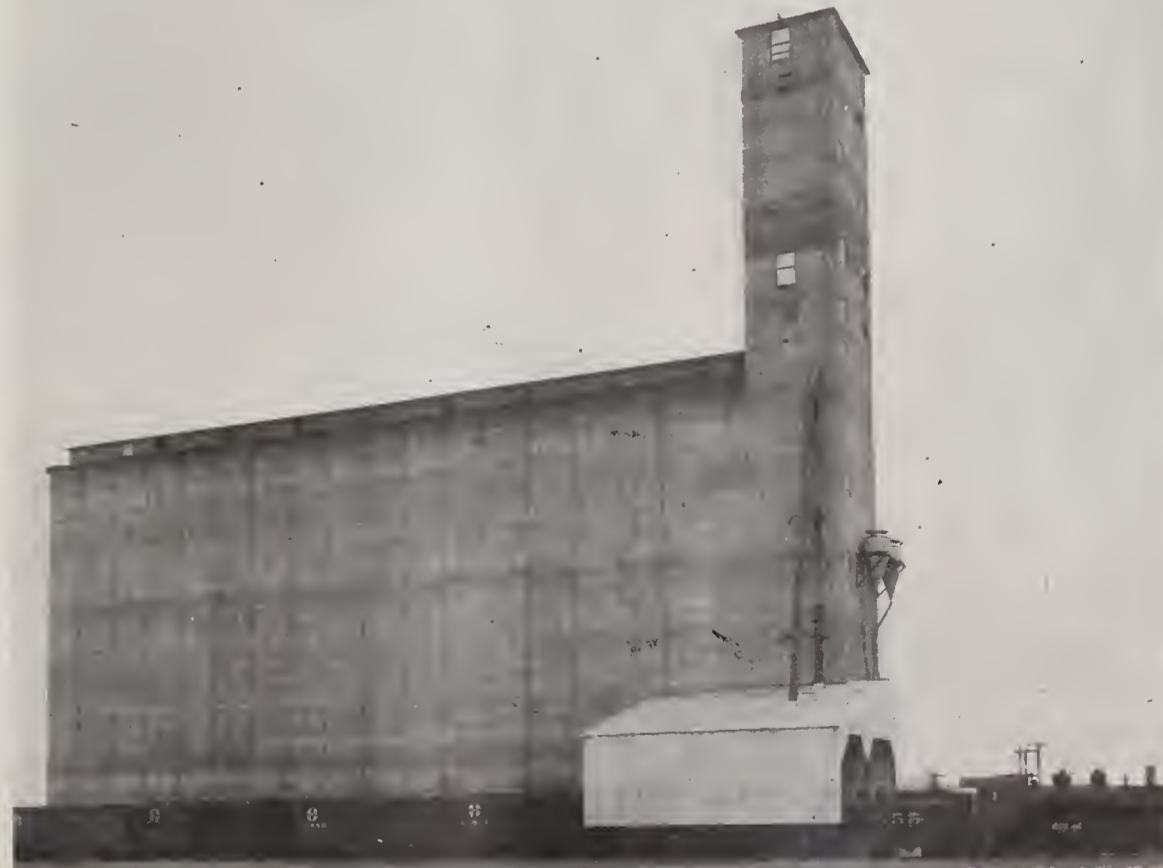
So when the doors of the new grain storage unit were opened to the public on February 15, hundreds of visitors who would not have come had they not read Mr. Johnson's enthusiastic words were admitted. Their tour of inspection was complete.

They were shown the basement where much of the plant's handling equipment is located with the usual arrangement of belt conveyors. They were also shown the pit through which the grain enters the elevator and the garners from which it leaves.

Following this the visitors were treated to an old-fashioned barbecue dinner at the Hoover Pavilion in Wright Park. This was considered the psychological moment to introduce the speakers and Scott Bateman of Topeka, state warehouse commissioner of the Kansas Grain Inspection Department, was called on first. He said he advocated the storage of southwest Kansas wheat in the Dodge City terminal where "there is better and safer storage without the danger of various evils that threaten wheat stored in private bins, and where there are warehouse receipts good enough for deposit with national banks or good for collateral if it is necessary to borrow money." The

crowd liked this and got it.

Mr. Bateman was followed by an impressive array of representatives of the grain and farming industries who all had agreeable things to say concerning Dodge City and its future. Among the speakers were such notables as Fred Fiegler, state supervisor of weights; J. M. Blair, president of the



NEW 500,000-BUSHEL UNIT AT DODGE CITY, KAN.
Scene of C. C. Isely's Gala Dedication Ceremonies attended by 1,000 visitors.

market, saying, "This is one of the most rapidly developing markets in Kansas. In the last three years your receipts have increased 200 per cent. I think it is one of the best potential markets in the state and unless I miss my guess, in 10 years it will undoubtedly be the equal of the Wichita market."

These were very cheering words and, realizing

THE AMERICAN ELEVATOR AND GRAIN TRADE

Forty-Eighth Year

Lyons Flour Milling Company; Ray Green, of the Wichita Terminal Elevator Company; Senator E. E. Frizell, head of the regional marketing association of the Federal Farm Board; Harry L. Hatshorn, Ford County representative in the state legislature; E. I. Burton, past president of the state board of agriculture; William Murphy, of the Kansas City Board of Trade; Dan Sullivan, Ulysses farmer; M. Gleason, Hodgeman County farmer; and, perhaps most important of all from a Dodge City standpoint, C. C. Isely, "a builder of the Southwest and the man responsible for bringing a terminal elevator to Dodge City."

Describing the visitors' reaction to the dedication ceremonies a local newspaper said: "Visitors to the elevator itself on East Trail Street and to the dinner and program in the Hoover Pavilion were estimated at 1,000 during the day, and it was felt that each went away with a new understanding of the importance to southwest Kansas of the advent of a terminal elevator in which to facilitate a local grain market, and each was proud of the fact that this section now has the largest terminal elevator in the western half of the state."

Which was just the way that C. C. Isely and other officers of the company wanted them to feel. The visitors would remember the I. C. Terminal Elevator for a long time because it had a personal connection with them; it was a place where they had spent an enjoyable day and any subsequent mention of the elevator would bring back pleasant memories. Naturally when over half the group were grain men this would mean an increased business.

And so other elevator firms planning to open plants at a future date might do well to consider Mr. Isely's procedure, which was indeed a "lesson in psychology."

ONCE again the folly of combining tile and wood in the construction of grain storage tanks has been brought forcibly to our attention. It would seem that the grain trade had learned its lesson from the numerous heavy losses which have occurred in which tile tanks having wooden tops, cupolas, or partitions, were involved. Unfortunately, such is not the case.

Less than a month ago, a fire originating from unknown cause destroyed a milling plant in Indiana. The mill building was of frame construction as were the attached structures. Detached about 14 feet from the mill building were four tile and frame grain storage tanks so placed that two of them were directly exposed by the mill. The tanks were set on a concrete slab. The tops of the tanks were covered with a wood-composition covered roof over which was a small frame cupola. The fire caused complete destruction of the flour mill and attached buildings and contents and heavy damage to the tanks. The two tanks directly exposed by the mill building were ruined to the extent that they will have to be completely torn down to the foundation before they can be satisfactorily rebuilt. The other tanks were also damaged to a considerable extent, necessitating the replacement of several rows of tile. The combustible roof and cupola were, of course, ignited and burned until they fell into the tanks where they burned on top of the grain until destruction was complete. The two tanks directly exposed by the mill were only partly filled with wheat, but it was all so badly damaged that it was fit only for feeding purposes. To make matters worse, a great deal of this wheat ran out onto the ground through manholes near the bottoms of the tanks because of the fact that wooden barriers were used to cover these manholes and these naturally burned out. The other two tanks were nearly full of wheat, but this was burned quite a way down into the tanks due largely to burning of the wood roof and cupola.

What conclusions are we to draw from this fire? First: It appears that our contention that tile construction will not stand hot exposing fires is supported. We have seen concrete tanks similarly exposed by fire which gave a very good account of themselves, damaged it is true, but not nearly

THE WORLD'S GRAIN EVALUATION INSURANCE POLICY

By CHARLES T. PEAVEY

During the days when the central west was considered as the Great American Desert, wholly valueless as an agricultural empire, a few hardy pioneers staked their all in proving it otherwise and there was soon a mighty army of invasion trekking westward. The settlement and cultivation of the land resulted in a vast production of grains and live stock, making necessary originating and terminal market places, that these products might be distributed and manufactured for the world's needs.

Merchandisers and financiers followed in the wake of this producing army of invasion, and Chicago, seemingly being the most advantageous location for the distribution of this vast bulk of grains and live stock, soon assumed the trading and financial lead.

Finance was timid and demanded protection and so the greatest world's mutual evaluation insurance agency, known as future trading, was established.

The world was large, grains were produced in its most remote parts, importing countries purchased where it was the most advantageous, each producing section was compelled to meet competition, new crops were in constant harvest somewhere and it was necessary that the world's crop should be hourly and daily known.

The Chicago Board of Trade was soon established as the central office for this world's evaluation agency which functioned with offices in every grain center the world over, the risks being carried by a vast army of voluntary underwriters.

For nearly a century it has functioned without cessation through the greatest financial and commercial storms the world has known, and never

has it closed, or been remiss in its settlements or responsibilities.

Because of this the producers the world over have always been accorded a cash market, at world's values, for its grains, the manufacturers and consumers have been able to supply their needs, the financiers have been assured a known margin of security, and the carrier of the hundreds of millions of bushels which the producers dump at harvest time, have been able to secure valuation insurance at a low cost.

The buyers at origination points know hourly values, the producers and consumers can always secure evaluation insurance as their judgment dictates, and the only complaint we have ever heard against this system comes from those who have refused to make intelligent use of its services, or are ignorant of its protective value.

The daily turnover of this world's evaluation insurance agency, as expressed by the world's grain exchanges, has been of the largest volume at the lowest cost and greatest security of any known business.

As one set of voluntary underwriters deems the risk too great for them to assume others have always been found to take their places, and the rates vary in accord with the risk assumed, but during the darkest days of war and calamities the world over, it has carried on without hesitation or fear, and the cash has always been forthcoming for the producers' grains.

We who have spent a commercial lifetime in the upbuilding and development of this world's grain trade are rather proud of our accomplishments. We do not claim each and all of our members have been perfect, but we challenge any other commercial or financial clan to show a higher average of commercial morality.

Tile and Wood

Storage Tanks Combining Them, Often Go Up in Smoke

By C. W. GUSTAFSON

Mutual Fire Prevention Bureau



to the extent that tile tanks are damaged and with less damage to grain contained in them. Second:



WRECK OF INDIANA TILE ELEVATOR

Roofs, superstructures, additions, and galleries should be of fire-resistive construction. Combustible construction not only suffers greater damage,

usually complete destruction, under exposure by fire, but also exposes the grain in the tanks to heavy damage. Third: Manhole covers or doors, whether in the sides or tops of tanks, should be of heavy steel rather than of wood.

For any type of elevator, protection against the lightning hazard is imperative. Much has been said and written on this subject this season, but any operator desiring the mutual's recommendations for lightning rodding systems may have them from our office if he will let his wants be known.

Accompanying any such request should be a statement of the type of elevator operated, giving dimensions, etc.

STOCKHOLDERS GIVEN CONTROL OF FEDERAL GRAIN CO-OP

Stockholders of the Farmers National Grain Corporation, representing 21 regional farmers marketing associations, were given administrative control of the corporation at its first annual meeting, held in Chicago early in April. Nineteen farmer stockholders were named on the new board of directors which takes the place of the original board that incorporated the organization.

C. E. Huff, Salina, Kas., was elected president; John Manley, Enid, Okla., vice-president, and Lawrence Farlow, Bloomington, Ill., secretary.

A brief business session was held during which two farm board members spoke encouragingly of results thus far in the administration of the Federal Agricultural Marketing Act. Samuel R. McKelvie, former Nebraska governor, and grain representative on the board, and Carl Williams, cotton representative, were the speakers.

In selecting the new board of directors, P. A. Lee and H. G. Keeney were dropped. The five new directors which were added are: E. E. Kennedy, Kankakee, Ill., Farmers Union; C. B. Steward, Omaha, Neb., Farmers West Central Grain Co-operative; Oscar Slosser, Astoria, Ohio, Ohio Farmers Grain and Supply Association; F. J. Wilmer, Rosalia, Wash., president North Pacific Grain Growers Association, and W. J. Kuhrt, Minneapolis, Northwest Grain Association.

►►► Tracing a Consignment

- A "Moving Picture" of the Many Handling and Inspection Operations Necessary
- For Proper Disposition of a Car

WHAT does it cost to handle grain through a terminal market? In an effort to answer this question, the Kansas City Board of Trade has presented in booklet form, a step-by-step picture of the progress of a car of grain through the market. A part of this study is reproduced here. It is a type of a publicity which, if multiplied in effect by promotion through other grain exchanges, might serve as an antidote against propaganda based on the theory that the present marketing routine is wasteful.

About three-fourths of the grain received in



DISCHARGING CONTENTS OF GRAIN TRIER AFTER PROBING CAR FOR SAMPLE

Kansas City is shipped "on consignment" and requires the services of commission merchants to effect a sale. These services may best be understood by following a car from a country station to the market until it is disposed of.

The commission merchant's services start before the car is actually shipped. He has made the acquaintance of the country shipper, his traveling representative has called, furnished information and offered his services, and he has written numerous letters to advise the shipper of the course of the market and to keep him in touch with developments that may be to his advantage.

When the country dealer has a car to ship and decides to send it to the Kansas City market he selects a commission merchant to represent him, bills the car to the latter with a notice of the shipment and information concerning its quality and amount so the commission merchant may be on the look-out for the arrival of the car and prepared to make a sale. Then he takes his bill of lading to the bank and secures an advance of approximately 90 per cent of the value of the car, the bank drawing upon the commission merchant accordingly. The latter must immediately pay the draft and take up the bill of lading when presented, whether the car has arrived or not.

When the car arrives in Kansas City, authorized officials of the state enter it and take a sample of the grain, and other officials make an "inspection"; that is, determine its grade according to the official standards of the United States Department of Agriculture. The sample together with an official certificate of the result of the inspection is delivered to the commission merchant. He then examines the sample and compares the certificate with the shipper's advice as to the quality. If he decides that his shipper's interest requires it, he orders a new sample taken and a new inspection made.

When the commission merchant is satisfied that the proper grade has been placed upon the car he is ready to sell it. He takes the sample with the official certificate to the trading hall where he has

a table and there displays them for the inspection of buyers. If the demand is active buyers will be bidding against each other for samples; if light, the sellers will probably be found soliciting buyers. But whatever the conditions of the day may be the commission merchant will so manage the consignment as to get the highest possible price for it. A sale is finally made and the commission merchant orders the car switched to the elevator or mill designated by the purchaser, surrenders the bill of lading to the carrier, and pays the freight charges.

When the car is unloaded into the elevator or mill it is weighed by officials of the state, and payment is based upon the weights so secured. The commission merchant collects the amount of the invoice, deducts the amount advanced against the draft, together with interest, the freight charges, the fees for weighing and inspection, and his commission. If there is any shortage in the weight he makes a claim on the railroad for the benefit of his shipper.

For these services the commission merchant receives a fixed commission determined by the rules of the board, of 1 per cent of the selling price,



CONCLUDING THE FIRST STEP IN INSPECTING A GRAIN CAR IN THE YARDS

subject to minimum commission as follows: On wheat, 1½ cents; corn, rye, and barley, one cent; and oats three-fourths cents per bushel.

The prices on the Kansas City market in 1929 were such that the commissions were in practically all instances the minimum amounts. Taking into account the contents of the average car, the average commission may be stated as follows:

Contents	Commission	per car
Grain (Average per car)	(Average)	
Wheat 1530 bu.	1½ cents per bu.	\$22.95
Corn 1500 bu.	1 cent per bu.	15.00
Oats 2000 bu.	¾ cent per bu.	15.00

The average price per car realized in 1929 approximated the following: Wheat \$1,912; corn \$1,275; oats \$950. Out of these commissions the commission merchant pays all his expenses, including office rent, clerk hire, telephone and telegraph tolls, and other costs of doing business.

The shipper, of course, is not required to utilize the services of a commission merchant; he can sell outright by description if he prefers. As the majority of cars are sold "on consignment" it is reasonable to suppose that this method is the more advantageous to the shipper. The prices of grain in a given grade upon a given day take a rather wide range because of fluctuations in the general market level and because of variations of quality, especially in protein content and "milling qualifications"—to some extent intangible factors and valued differently by different buyers. A day's

range of prices in a given grade of grain may exceed 15 to 20 cents per bushel. It is easily conceivable that a commission of 1½ cents per bushel could be well invested on the chance of placing the grain in the higher range of prices, even if no other consideration were involved.

The commission merchant under the law is the agent of the shipper and held to the exercise of the utmost good faith in his dealings with him. The board of trade also by rule and custom requires a high standard of honorable dealing. Be it said for this dealer, however, that it seldom is necessary to discipline him, and as a class his code of ethics is of the highest type.

The commissions are affected by the competition of one market with another and would be held to a reasonable level by such competition and other competitive forces. The standard charge for hauling wheat in the country is one cent per bushel per mile. The commission charged for selling wheat and performing the other services described is, therefore, equivalent to the trucking charge for one and one-half miles. This reasonable charge can be kept so low only by the efficiency possible under the exchange plan—by bringing all buyers to a common meeting place.

In his admirable work, "The Marketing of Farm Products," Professor L. D. H. Weld reports that the commissions for selling farm products when figured on a percentage basis vary all the way from less than 1 per cent up to 15 per cent of the cost. The commissions on grain are, as noticed above 1 per cent and, therefore, within the very lowest range. Professor Weld says: "The commissions are lowest for the great staple commodities which are handled



FURTHER INSPECTION SERVICE TO DETERMINE DOCKAGE PERCENTAGE

in car lots, and sold through organized market places where buyers and sellers are in close proximity to each other."

We have followed a car of grain from the country elevator to its sale in the trading hall of the board of trade, and its unloading into an elevator or a mill in Kansas City and have yet to determine the cost of getting it out of the market.

Of the 61 members of the board of trade who are buyers of cash grain, 12 represent flour mills in the Kansas City district. These mills in 1929 produced 7,986,450 barrels of flour, which required approximately 36,737,000 bushels of wheat of the total of 101,552,000 bushels received. These purchases were not subject to any charge in the market (of course, the commissions for selling the grain were charged). The entire cost after the commission merchant sold the grain enters into the production cost of the mills. Indeed, the only cost of buying the grain is that of maintaining the buyers and their memberships in the board of trade.

Another class of buyers represent mills or other

out-of-town purchasers and act for them as commission merchants, buying upon the exchange for a commission fixed by the rules of the board of trade just as the other class of commission merchants sell for a fixed commission. The commissions for buying are 1 per cent of the purchase price subject to maximum and minimum commissions, as follows:

	Per Bushel	Maximum	Minimum
Wheat, rye, barley.....	1 1/2 cents	1 cent	
Corn	1 cent	3/4 cent	
Oats	1 cent	1/2 cent	

We have seen that a mill in Kansas City represented by a membership in the board of trade can buy wheat in the trading hall with no expense except the salary of its buyer and his membership in the board of trade. He buys a car of wheat for, say, \$1.35 per bushel—his expenses are part of the



TO PROTECT THE BUYER: FEDERAL GRAIN ANALYSTS EXAMINE SAMPLES

mill's production cost and the commission merchant has earned his selling commission 1 1/2 cents per bushel. There are no other charges.

Now let us take an out-of-town mill which has no membership in the board of trade. It commissions a member of the board to buy a similar car on the same day at the same price of \$1.35 per bushel. It pays a commission of 1.35 cents per bushel, a total of \$1.3635 per bushel. But this mill has no buyer's salary to pay and no expense of membership in the board of trade; its extra expense of 1.35 cents per bushel is a set-off, more or less adequate, against the buying expense of the member mill. The country dealer sustains no greater expense in one case than in the other. The charge to him for selling the car is 1 1/2 cents per bushel, regardless of the disposition of the grain.

We come now to a class of buyers, more numerous and more important from the standpoint of volume of business than the others. This is the class of buyers for storage or for immediate mer-

chandising and includes those who operate elevators and those who do not but who hire storage from the elevators. There are 49 such buyers in the board of trade.

These dealers are true merchants, buying, storing, conditioning, and selling grain and always maintaining a stock of grain as the basis of their operations. As grain is harvested within a few months but consumed throughout the 12 months of the year storage is a prime necessity. It is this class of dealer, who stands in the market every day ready, willing, and able to buy and pay cash for such grain as may be offered; who conditions such grain as requires it; and who stores and holds the grain until a demand can be found to match the supply.

We have referred to the mill buyer who buys for the immediate requirements of his mill and to the order buyer who buys in the same way for mills outside the market. When their immediate orders are filled they retire from the market, but not so the merchant—he is always ready to buy. Flour mills are scattered all over the country, and those who do not buy directly in the market look to the merchant for their supplies. The latter's purchases are not based upon orders in hand, but he is ready to buy regardless of immediate orders and generally with the expectation that the demand will be spread over many months in the future and impossible of measurement at the time of purchase.

PLENTY OF COMPETITION

The grain merchant's earnings are not based upon fixed rates of commission but are such as he can secure under the stress of a particularly fierce competition. Many persons have the erroneous notion that his profits are determined by a rise in the market price—that he "buys low and sells high." Nothing could be farther from the truth. As a matter of fact it makes no difference to this merchant whether the price goes up or down. In many years he will accumulate a stock of grain at a price far above the final selling price. In August, 1929, during the peak movement of wheat from the farms into the Kansas City market the price paid for the grain was approximately 30 cents a bushel more than the price at which the dealer sold it in February, 1930.

The merchant carried the grain in his elevator for six months at a cost for storage, insurance, interest, etc., of approximately 10 cents per bushel. This situation suggests a total loss of 40 cents a bushel, or on a stock of grain of 1,000,000 bushels a total of \$400,000. Actually, no such loss was sustained. For the same reason, if the market had advanced 30 cents a bushel instead of declining the dealer would have made no profit from the change. The reason is to be found in the practice of "hedging."

By hedging is meant simply that the dealer, when he purchased the grain, immediately sold a like quantity for future delivery. That is, before the market could change up or down he made a sale.

He thus had reverse transactions on his books—a purchase and a sale. Obviously, no matter which way the market might go he would have both a profit and a loss—one offsetting the other. In practice, the sale must be kept protected by a deposit, or margin as it is generally called. If the market goes down there is a profit in the sale, and the dealer actually draws this profit in cash from the clearing house. If the market rises there is a loss, and he must pay the cash into the clearing house to protect the loss. His cash account is adjusted in this way at the close of each day's market, and it, therefore, involves a daily adjustment of the purchase price of the grain by cash paid out or received.

Grain is a staple commodity. There are no advertising or trademarks to create a special demand. The form of the commodity is not changed. Price is the controlling consideration, and very small fractions of a cent per bushel will determine a sale. These conditions further limit the profit pos-



TESTING GRAIN FOR MOISTURE IN THE KANSAS CITY INSPECTION LABORATORY

sibilities. The profit per bushel must be very small. It is only by handling a substantial volume of grain at a very small profit per bushel that this class of dealer can succeed. An average gross profit of one cent per bushel would be considered very satisfactory.

This low cost of doing business explains the failure of the numerous co-operative movements which have been designed to displace the present marketing system. Not only have these co-operative ventures failed to market grain more cheaply than the present competitive method, but they have generally been obliged to discontinue business because of their inability to approach the low operating costs of the present dealers. This fact is now recognized by the Federal Farm Board.

BUILD 150,000 BUSHEL ADDITION TO KANSAS PLANT

The steady, if not spectacular growth of the Imperial Flour Mills Company of Harper, Kan., made necessary an increase in its storage capacity early last year, resulting in the erection of a 150,000-bushel addition to the original plant erected some time ago.

Work was begun on the new building by a Denver construction company during the latter part of January and was completed in May. The elevator, an up-to-date steel and concrete fireproof edifice, contains four large circular tanks of around 25,000 bushels' capacity, each with a number of interstice bins so hopped as to make efficient and rapid handling of grain. Two large legs capable of handling 4,000 bushels of grain an hour are so arranged as to permit rapid handling of grain, both in loading and unloading at the same time. Modern equipment and cleaning machinery enables the more perfect conditioning of grain milling. A clean-

ing capacity of 500 bushels an hour can easily be attained.

Electric power is used, three electric motors generating a total of 30 horsepower. Belt drives are employed throughout the elevator. Fire prevention facilities are limited to hand extinguishers placed in various parts of the building.

A large supply of first-class building material was used in erecting the new structure. It required 1,200 yards of sand, three cars of structural steel, one car of I-beams, a car of metal spouts and boots, 15 cars of cement and two cars of lumber. This was in addition to other incidentals.

It was necessary to employ between 32 and 35 men at all times, working on a double shift of 12 hours each to complete the building on scheduled time. The work was somewhat delayed at the beginning when in digging the pits water was struck at 18 feet deep and it became imperative that work be halted until the proper equipment was secured to take care of the flow-in of water.

The building, coming at a slack time in the grain season was considered a Godsend by the Harper

County laborers who otherwise would have been without employment.

Since the Imperial Flour Mills Company acquired the Harper plant several years ago they have enjoyed a steady and prosperous growth, being one of the few mills in that section with almost continuous operation. This constant growth naturally called for added facilities to take care of their business and for this reason the new grain elevator was built. In addition, it will provide storage for the wheat growers of Harper County.

The plant is ideally situated for efficient transporting of its products, which include "Imperial Flour" and "Superloaf Flour," being adjacent to the Santa Fe and two other railroads serving the local territory.

The officers of the company are: C. M. Jackman, president; D. S. Jackman and W. F. McCollough, vice-presidents; R. W. Magill, secretary; and W. M. Stillwell, treasurer. H. O. Davis, who was in charge of the building of the new addition, is general manager while W. A. Applegate is sales manager of the concern.

The Unseen Foe of Stored Grain

Combatting the Tiny Insect Pests That Annually Cause Grain Losses Amounting to Millions of Dollars

THE protection of grain in storage from insects is a serious problem for the grain dealer and elevator man. The losses are tremendous. In a review in 1924 of the problems in marketing Pennsylvania wheat, it was estimated that during a recent outbreak of the angoumois grain moth the state of Pennsylvania suffered an annual loss of from \$1,000,000 to \$3,000,000 from the depredations of this insect alone.

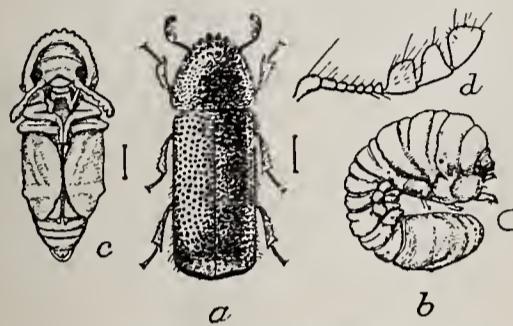
Of the total number of inspections made in Oklahoma of wheat arriving at market from the farms from September 3, 1919, to December 31, 1919, the

importance of control by fumigating grain in suitable tight containers.

For use in grain elevators, a method has been perfected for successfully fumigating grain by introducing a form of calcium cyanide into the stream of wheat as the grain enters the bin. This highly specialized method of treatment is available at present only for the large storage elevators.

The expression "heavier-than-air fumigants" means those gases that, being heavier than air, will sink down into the grain in a tight bin and, by forcing the lighter air out, will smother and kill all insects within the bin. In thoroughly tight bins these gases can kill all stages of the insects—the adult insects crawling between the kernels, the eggs already laid in the kernels, and the grubs, pupae, and adults within the kernels themselves. If bins are not thoroughly tight the effectiveness of the gases is reduced in proportion to the opportunities given the gas for escaping through cracks or other openings in the bottom and sides of the bin, or being dissipated somewhat at open tops.

At present there are a number of heavier-than-air chemical fumigants that offer a safe control for insects under storage conditions. These are carbon disulphide and certain carbon-disulphide mixtures, ethylene dichloride-carbon tetrachloride



LESSER FLOUR BEETLE

The Stages of Development from Pupa, c, to Larva, b, to Adult, a. D shows the Antenna.

percentages of carloads reported infested by rice weevils and angoumois grain moths for each of the 17 weeks beginning with the week of September 3 were 17, 30, 55, 44, 69, 69, 78, 88, 75, 90, 82, 66, 67, 63, 80, 75, and 58 per cent, respectively. Of the carload lots of wheat and corn received at Sherman, Texas, during the months of July to December, 1920, 88.7 per cent of the wheat and 79.5 per cent of the corn were found infested by the rice weevil and the angoumois grain moth.

The inspection certificates of Winter wheat shipped into the Baltimore market from July 1, 1922, to June 30, 1924, showed that 13 per cent of the 7,892 carloads were graded "sample grade" during the season 1922-23 on account of the presence of insects, and 20 per cent of 2,860 carloads during the season 1923-24.

Aside from early harvesting and threshing of grain, which lessen the chances for insects to attack grain seriously, the most common method employed for killing insects in bulk grain is fumigation. This is the only method at present available on the average farm. At grain elevators many insects can be removed by the running, screening, and blowing processes; but even this moving of the grain does not remove the kernels in which small grubs are developing, nor does it get rid of all of the other insects. Running the grain from one elevator bin to another in cold weather and allowing the grain to fall through the air in zero weather will cool the grain, and if this is cooled to a sufficiently low temperature insect activity will cease for varying periods, depending upon the opportunity for the grain again to become warmed.

Heating grain to a temperature of 125 degrees to 140 degrees F., in grain driers will kill all insects within the grain, provided each kernel is thoroughly heated through to these temperatures. Heat is used successfully in sterilizing grain at ports of entry where it is desired to prevent the entry of foreign pests. All modern and large elevators are equipped with heating and drying equipment, but this equipment is used primarily for controlling the moisture content of grain. Since grain in the United States is bought and sold by weight, and since heating grain reduces the weight by driving off some of the moisture content, heat is not a favorite control measure for insects at grain elevators.

Aside from the application of heat and cold and other elevator practices, all who are interested in insect control in grain are forced to recognize the

Stored grain presents many problems that must be met successfully by the elevator man if the grain in his care is to reach the miller in first class condition. In this article, which is taken from a Government bulletin prepared by E. A. Back and R. T. Cotton of the Department of Agriculture, is contained many pointers that the elevator man and grain dealer should find helpful in cutting down the tremendous losses caused by insects each year.

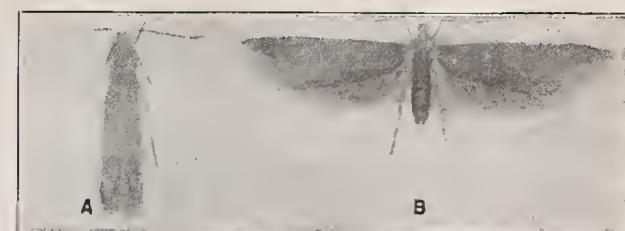
mixture, carbon tetrachloride alone, and ethylene oxide. The grain dealer should become acquainted with the characteristics of each of these fumigants and select the one best suited to his needs.

Chloropicrin, one of the powerful war gases, shows promise of becoming a practical fumigant for bulk grain, but has only recently become commercially available.

Ethylene oxide has proved an excellent and safe fumigant under certain conditions, but its availability for bulk-grain fumigation has not yet been fully demonstrated.

Carbon disulphide* has been in use for years as a standard and successful fumigant for grain. It is a highly inflammable liquid. It will not only flash but continue to burn at a temperature as low as -4 degrees Fahrenheit. The greatest danger with this substance resides in the volatility of its inflammable vapors, which form explosive mixtures with air, and its tendency to ignite spontaneously when heated to about 300 degrees, or in the presence of iron and other metals, particularly copper, at a much lower temperature. In the presence of copper it ignites at as low a temperature as 205 degrees. Six per cent of the vapor of carbon disulphide in air makes an explosive mixture, and the presence of dusty, metallic surfaces (such as are present in mills and elevators) favors the explosibility of the vapor. Because of the fire hazard involved in the use of carbon disulphide, most insurance companies prohibit its use in buildings covered by their policies, except in certain cases

*Before using carbon disulphide it is advisable to consult your insurance company.—Editor's Note.

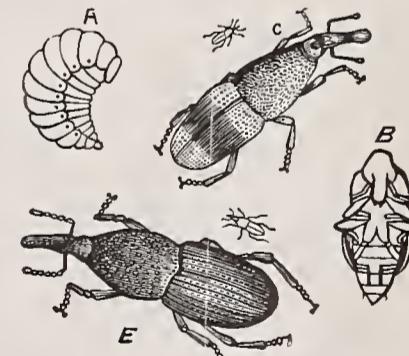


THE DESTRUCTIVE ANGOUMOIS GRAIN MOTH
Actual Photograph, a, Wings Closed and b, Wings Extended.

where its use is permitted under conditions imposed by the insurance companies.

Many attempts have been made to prepare a fumigant containing carbon disulphide that would be free from the fire hazard. Several such mixtures have been approved by the fire underwriters and can be obtained commercially. In spite of the explosive and inflammable nature of the gas, it must be admitted that, considering the large quantity of carbon disulphide used for years past, the number of fires and explosions resulting from its use has been exceedingly small, and these few have always been traced to carelessness. Many owners of small elevators throughout the Middle West, state that they have been using carbon disulphide so satisfactorily for years that they are going to continue its use. Plantation managers and progressive farmers of the Gulf Coast states have found in carbon disulphide an almost perfect fumigant for protecting corn from weevils. Large elevators in Baltimore, Md., are still using large quantities of carbon disulphide in fumigating grain in railway cars. These statements are made in order that one may not be frightened away from the use of a cheap and effective fumigant merely because it must be handled carefully. The writers seldom recommend carbon disulphide for fumigating large buildings; but for the average grain bin or crib, or the small elevator where surrounding conditions can be controlled, this gas has no superior from the standpoint of toxicity under average conditions prevailing at the present writing (October, 1929). For fumigating large elevator bins, or when there is the least danger from fire in any form, a noninflammable fumigant should be used.

Remember, lighted lanterns, sparks from electric switches, sparks formed by hammering upon metals, lighted cigars, a stove fire in a cook's quarters on a grain boat, even hot steam pipes and static and frictional electricity may cause an explosion of carbon disulphide vapor; therefore fire in any form, or excessive heat, or frictional or static electricity should not be allowed near a bin or building that is being fumigated with this chemical.



GRAIN WEEVIL
Another Serious Menace to Stored Grain; Pupa, b, Larva, a, Adults, c and e.

In a thoroughly tight container four pounds of carbon disulphide per 1,000 cubic feet of space, regardless of the amount of this space occupied by the grain, will kill all insects. In the average well-built cornerrib, designed especially for fumigation, eight pounds per 1,000 cubic feet of space is the more common dosage. In many more ordinary cribs as high as 20 pounds per 1,000 cubic feet is used. As grain is valuable and the fumigant is relatively cheap, it is better to use more than is actually necessary and kill the insects than to over-estimate the tightness of the crib and use too little and have to do the job all over again. A few fumigations will acquaint each man with the dosage the particular crib needs.

The ethylene dichloride-carbon tetrachloride mix-

ture is an inexpensive, noninflammable fumigant that can be used with safety in situations where it is unwise to use carbon disulphide. It is made of three parts by volume of ethylene dichloride and one part by volume of carbon tetrachloride. It can be purchased already mixed, or the user can obtain the two chemicals and combine them himself.

The ethylene dichloride is the active ingredient of the mixture, the carbon tetrachloride being used to render the fumigant noninflammable. The ethylene dichloride is a colorless liquid with an odor resembling that of chloroform. It is about one and one-fourth times as heavy as water, one gallon weighing 10.4 pounds. Its vapor is over three times as heavy as air.

It should be applied in the same manner as carbon disulphide or the carbon-disulphide mixtures. It is about one-fifth as toxic against the rice weevil as carbon disulphide and should be used accordingly.

It has no adverse effect upon the germination of seeds and is not dangerous to handle. It has an anæsthetic action when breathed in concentrated form, but unless the fumes are breathed for a protracted period no harmful results need be feared.

The ethylene dichloride-carbon tetrachloride mixture costs about 10 cents per pound.

Ethylene oxide, a gas recently developed by the bureau of entomology in co-operation with the bureau of chemistry and soils, shows promise of being an excellent fumigant for stored grain when used in combination with carbon dioxide.

Preliminary tests indicate that satisfactory results can be obtained in large storage tanks without hazard from fire, or danger to the operator, and at a reasonable cost.

Ethylene oxide at ordinary temperatures is a colorless gas. At low temperatures it is a mobile, colorless liquid boiling at 10.5 degrees centigrade (about 51.4 degrees Fahrenheit) and having a specific gravity of 0.887 at from 4 degrees to 7 degrees centigrade (about 39.2 degrees to 44.6 degrees Fahrenheit). The concentrated vapors of ethylene oxide are inflammable, but concentrations up to $3\frac{1}{2}$ pounds per 1,000 cubic feet of space are non-explosive and noninflammable. The ignition point is 814 degrees Fahrenheit. The gas is not highly toxic to man, but when inhaled for a long time produces a cyanosis, which, however, is counteracted by the use of carbon dioxide as an antidote.

The use of carbon dioxide in combination with ethylene oxide in the proportion of seven parts by weight of carbon dioxide to one part of ethylene oxide greatly increases its insecticidal action and in addition entirely removes any possibility of fire. For this reason it is always desirable to use carbon dioxide with ethylene oxide.

A dosage of two pounds of ethylene oxide per 1,000 cubic feet of space fumigated, with the carbon dioxide in proportion, appears to be satisfactory.

Methods of applying the mixture to the grain are still in the experimental stage, but it is hoped that they will be perfected in the near future. Ethylene oxide can be purchased at a cost of 75 cents per pound.

The successful use of hydrocyanic-acid gas as a fumigant for bulk grain is not possible for the average farmer at the present time. Its use is restricted to elevator concerns equipped with modern machinery and able to employ technical assistance. The method of application is so involved that a full discussion is not given here. To the relatively few grain handlers who can use hydrocyanic-acid gas there is available in printed form an excellent article by Gilbert Schenk, reference to which will be given gladly.

The treatment consists, in brief, of thoroughly mixing calcium cyanide (in a fine granular form like medium fine sand) with the wheat throughout the bin. This is accomplished by installing a motor-driven hopper over the stream of wheat at a point close to where the wheat enters the bin. By regulating the flow of wheat and the discharge of calcium cyanide from the hopper into the wheat stream it is possible to incorporate with the wheat entering the bin a dosage of 25 pounds of the fumi-

gant to each 1,000 bushels. Fumigations may be conducted with a temperature as low as 40 degrees Fahrenheit and should always continue for 72 hours. There is no fire or explosion hazard so far as the fumigant is concerned, and the long period of fumigation results in the death of all insects by hydrocyanic-acid gas, the vapor evolved from the calcium cyanide. It has been found by Swanson and Working of the department of the milling industry of the Kansas State Agricultural College, that fumigations conducted with the recommended dosage of 25 pounds per 1,000 bushels of wheat, or double this dosage, have no effect upon the milling or baking qualities of treated wheat. Also the experiments of these investigators indicate that the health of animals fed with grain treated with even double or treble the dosage recommended is not affected. Since hydrocyanic-acid gas is deadly to human beings, certain precautions against fatalities to workmen and operators must be considered. These precautions, however, are a part of any technical advice any firm deciding to use this fumigant must obtain from experienced fumigators and should be made a part of any contract entered into between an elevator concern and the fumigator employed.

Careful experimental work has demonstrated that, with the exception of ethylene oxide, fumigations with the fumigants mentioned in this article have no injurious effect upon the germination of seeds when conducted in the manner prescribed and at the strengths recommended.

The heating of grain may be caused either by a high moisture content or by the presence of insects. Peas infested with bean weevils have been known to heat to as high as 103 degrees Fahrenheit, when the normal temperature was 58 degrees. Wheat stored in farmers' bins and well infested with the rice weevil and the flat grain beetle has been found heating to 109 degrees when the normal temperature was 27 degrees. Wheat in shallow bins or on barn floors and stored in piles ranging in depth from one to three feet will heat if badly infested. Wet corn stored in a concrete elevator bin has been known to heat to about 300 degrees. Insects in heating grain are killed or driven away when the temperature approximates 120 degrees or higher. The records of the grain inspection department of the Baltimore Chamber of Commerce indicate that in 1923, during the September-December period, over 50 per cent of the 1,109 railroad box cars and bay boats fumigated because of insects present in the wheat shipped in them were recorded as heating.

The foregoing facts are presented to direct attention to the following two important points that must be considered in fumigating hot grain:

(1) If the grain is heating to the ignition point of an inflammable and explosive fumigant, there is just as much danger of fire as though fire itself were brought in contact with the gas. There is on record only one instance of an explosion following the use of carbon disulphide in heating grain. In this case, wet corn in a concrete bin was involved, and it was known to be heating, from causes other than insect attack, to a temperature of about 300

degrees Fahrenheit. When fumigating heating grain it should be determined beforehand that its temperature is well below the ignition point of the fumigant if the fumigant is one that is inflammable and explosive. The experience of fumigators the country over indicates that grain infested with weevils is seldom dangerously hot.

(2) Grain heating as a result of insect attack can have its temperature reduced to normal by fumigating with carbon disulphide, and probably by the other effective fumigants. If the outside temperature is low enough to prevent insects from feeding on grain the heating grain should be fumigated so that its temperature will fall to the normal. This will prevent insects from continuing their destruction during winter, when it would naturally be expected that the cold would afford protection from them.

MOVIE FILM SHOWS GRAIN GRADING PROGRESS

A grain inspection film prepared by the Grain Division of the Department of Agriculture has just been released for public use. This film shows the various steps in grain inspection beginning with the farmer's wagonload of grain at the country elevator and following the grain through the large terminal market into lake boats and finally into the ocean boat for export.

All inspection steps are illustrated in such a way as to give a clear idea of the inspection methods. The relative importance of the various grading factors such as test weight, moisture and damaged kernels, in the establishment of the market value and market grade is also shown. The purpose of this film is primarily to bring about a better understanding of grain inspection methods at country points, so that producers will receive better prices for grain of superior quality and both producers and elevator operators will know how to handle grain so as to obtain better grades at the terminal markets.

Requests for the loan of this film can be made directly to the United States Department of Agriculture at Washington, D. C., or to General Field Headquarters, at 327 South LaSalle Street, Room 1138, Chicago, Ill.

GRAIN FIRM CHARGED WITH GRADE RULE VIOLATION

The United States Department of Agriculture announces, through a seven-page mimeograph report, the results of its investigation into nine sales of grain made by Clement Grain Company, Waco, Texas. The findings sustain the charges that there was incorrect certification of grades in these deals. The Grain Standards Act provides for no penalty in such cases, but only for publication of facts developed.

B. E. Clement, ex-president of the Grain and Feed Dealers National Association, is a brother of John W. Clement, head of the investigated concern, but has not been associated with him in the grain business for several years.

PRICE INDEX SINKING

The general level of farm prices was 131 on February 15, as compared with 134 on January 15, and 136 in February a year ago, the five-year period 1909 to 1914 being used as a base of 100, according to the March report of the Bureau of Agricultural Economics, United States Department of Agriculture.

The farm price of corn showed no significant change from January 15 to February 15, slight declines in the corn belt and north Atlantic states almost wholly offsetting price advances in southern and far-western territory. Commercial stocks are low and receipts of corn at primary markets were small during recent weeks.

Continuance of the weak foreign demand for wheat forced the farm price of wheat to new low levels for the current crop season.



A NOVEL CONVEYOR SYSTEM

This Modern System of Loading Grain Onto Barges Is in Extensive Use on the Sacramento and San Joaquin Rivers, California. The Bags Are Placed on an Endless Belt Conveyor, Which Is Supported by Five Cables Extending from a High Mast on the Barge, and Are Delivered and Piled on the Deck in Short Order.

Commercial Washing of Smutty Wheat Under Eastern Conditions

By JOHN H. COX, Senior Marketing Specialist, and H. E. EARL, Junior Specialist, Federal Department of Agriculture

DURING the last few years, the problem of grading and marketing smutty wheat became a large one. Stinking smut of wheat is a disease that occurs wherever wheat is grown. It reduces the yield of wheat and lowers the price at the markets. Smut is a parasitic fungus, made up of dark-colored balls, about the size of a kernel of wheat, each of which is composed of many microscopic spores. These balls replace the kernels of grain. When the wheat is threshed, the balls are broken and the contents smeared over the kernels of wheat or come out as smut balls. About 3,750,000 spores are found in a smut ball of average size.

If only a trace of smut is visible to the naked eye, there will be enough smut spores present to contaminate every kernel. All seed wheat should be treated with copper carbonate or formaldehyde before sowing.

Official grain standards state that smutty wheat shall be all wheat which has an unmistakable odor of smut, or which contains spores, balls, or portions of balls of smut, in excess of a quantity equal to two balls of average size in 50 grams of wheat.

The following table gives the car receipts on which the available data show whether the grain was smutty or not, at the markets east of the Rocky Mountains, and the number and percentage of these cars that graded "smutty."

WHEAT SMUT TABLE

Total number of carload receipts of wheat inspected with smut data available at the markets east of the Rocky Mountains, by crop years from July 1, 1923 to March 31, 1928, inclusive, and the number and percentage of cars that graded "smutty."

Year	Total carload receipts inspected	Number of cars graded		Percentage of cars graded smutty	Per Cent
		with smut data available	smutty		
1923	*344,095	14,219	4.1		
1924	*513,919	33,515	6.5		
1925	*344,687	26,020	7.5		
1926	*392,183	46,489	11.8		
1927	*467,577	53,781	11.5		
†1928	*534,970	54,843	10.2		
Total	2,597,131	228,867	8.8		

*These figures are for the first nine months of the crop year.

†These figures do not represent all of the inspection receipts, but only that portion which has smut data available.

The percentage of cars of wheat receipts grading smutty for which smut data are available, for the crop year of 1923, was 4.1 per cent. The percentage increased each year until the crop year 1926, when the percentage of wheat receipts grading smutty was 11.8 per cent. In the states east of the Rocky Mountains, 727,922,000 bushels of wheat were raised in 1926. During that year the total inspections of receipts of wheat east of the Rockies were 548,846 cars. Of these inspections, 392,183 cars have smut data available that show whether the wheat was smutty or not. If the smut percentage found in a large portion of car receipts was applied to the total receipts, there would have been approximately 80,000,000 bushels of wheat grading smutty.

Wheat is sometimes graded more than once because of intermarket shipments, but, as probably 25 per cent would be a conservative estimate of the wheat that was graded more than once, we have approximately 60,000,000 bushels of smutty wheat raised east of the Rocky Mountains for the crop year of 1926 and which were graded at the markets.

Flour mills can not use this smutty wheat without first washing or scouring it. The smut spores become mixed with the flour and, if numerous, impart the odor of the smut and make black specks in

the flour. As wheat washing machines are expensive, and the demand for high-grade flour is very exacting, many mills buy wheat free of smut. When a mill is accustomed to buying most of the wheat in its locality, but is not equipped with washing machines, it bins the smutty wheat together for shipping to market. Washing wheat requires a large quantity of water and the disposal of the dirty water is a problem in some localities. As dirty water pollutes the streams, to run the water into streams is forbidden in some places. The larger elevators and mills are usually situated on large bodies of water or on rivers where they have no water problem.

When elevators began to wash wheat, much of the smutty wheat from a large territory was shipped to them for washing and conditioning. As the grain washed by the elevator could be used by mills not equipped with washers, a wider distribution could be obtained for the wheat that was originally smutty.

Many private and public elevators and mills have been equipped with wheat washers or scouring ma-

ing smut spore count, test weight per bushel, moisture, and number of bushels before and after treatment.

TESTS AT ELEVATORS

In a sample of 50 grams the maximum of spores in any one of the 18 lots before washing was 68,888,820; the minimum number of spores was 5,111,106; and the average number of smut spores was 34,759,224. The maximum number of smut spores left in any of the 18 lots after washing was 8,333,325, the minimum number 999,999, and the average number 2,833,330. One lot had 888,888 spores left in the wheat after treatment, but had, in addition, one half of a smut ball to 100 grams of wheat. The average number of spores given was considerably less than one smut ball to 50 grams. Wheat with this number of spores can be milled satisfactorily.

The test weight per bushel of the wheat that was washed was changed according to the treatment given. If the wheat kernels are covered with smut spores, the test weight per bushel is less than if the same numbers of spores are in the form of smut balls. If the smut is in the form of balls, and they are not excessive in number, the test weight per bushel after washing and drying is less than the original weight. If the kernels are covered with any substance like smut, lime, or elevator dust, the test weight is lighter than if no foreign substance is present, because the kernels will not pack in the test kettle so closely as they otherwise would. The bran of the wheat is roughened somewhat by washing and interferes with the packing of the kernels in the test kettle.

It is known that if mature dry wheat becomes wet and has a high moisture content, it does not reach the former test weight per bushel, even if it reaches the former moisture content. The bran wrinkles or roughens in the process of wetting and drying, and air spaces are left within the kernel. These air spaces probably do not occur within the kernel in the washing process, as only about 2 per cent of moisture is added. They do occur in dead ripe, dry wheat, that is standing in the field ready for combining, if the wheat becomes wet from rains and heavy dews.

Eight lots of wheat were washed and dried only once. On one of these lots the test weight was not made, and two lots were washed and dried twice. The test weight per bushel of five of the eight lots was less after treatment than before treatment; whereas the test weight per bushel of the other two lots was greater. The original test weight per bushel of these other two lots was more or less affected by the spores on the kernel.

The average test weight per bushel of these seven lots before treatment was 55.2 pounds, and the average test weight per bushel of the same lots after treatment was 55.1 pounds. The other lots on which a test weight per bushel was made before and after treatment, were run through a scouring machine, or were run through the washer without water which gave a scouring effect. All of these lots showed a higher test weight per bushel after treatment than before treatment. The average test weight per bushel of the original grain in these 10 lots was 55.6 pounds; the average test weight per bushel after treatment was 56.9 pounds. The lots, therefore, averaged 1.3 pounds heavier after treatment, which was due to the scouring.

MOISTURE CONTENT

The moisture content of wheat from 17 lots before washing was 13.8 per cent; the moisture content of the same lots after treatment and drying was 13.9 per cent. Four of the 17 lots were washed twice and were dried after each washing, with the



RIGHT OUT IN IT: JOHN H. COX, FEDERAL GRAIN MARKETING SPECIALIST, CO-AUTHOR OF THIS ARTICLE, GETS FACTS FIRST-HAND

chines. If a large number of smut balls are in the wheat, they should be removed by a fan, or the smut balls should be pulverized by running through a scouring machine before washing. Smut balls become tough and difficult to break and pulverize when they are wet. After washing the wheat, elevators usually dry it to the original moisture content. If the wheat needs a second washing to remove the smut, the grain is dried and then washed and then dried again. Some elevators have two washers installed together, so that the wheat can be washed a second time, if necessary. The second machine can be used without water, so that some of the water taken up by the wheat in the first washing can be thrown off by the swift whirling of the machine. Some mills wash the wheat and grind it without tempering. If this is done, drying is not necessary.

The grade for treated wheat is given as if the wheat were not treated and a notation is made on the certificate as to the kind of treatment. The wheat can be milled or sold for milling purposes without further treatment; for, when milled, the flour and other mill products are not contaminated with smut spores.

In a series of recent tests, 18 different lots of wheat were run through washers at different elevators and a study was made of the results, includ-

exception of one lot which was run through the scouring machine after the first wash.

Drying the grain after washing facilitates handling through the elevator, and if the wheat is to be washed twice, it is well to dry. If two washers are installed together, so that the wheat can go through both washers at one operation, only one drying is necessary.

The loss of weight in washing wheat depends upon the quantity of smut present by weight, other material that will be lost in the operation such as chess, small seeds, and broken wheat, and the loss in drying. Drying may not be required if the wheat is to be milled at once, as most of the moisture is on the outside of the kernels and takes the place of the tempering in the preparation of the wheat for milling. The greatest loss of any of the lots of wheat washed and otherwise treated was 5.36 per cent. This lot had a large number of smut balls which amounted to several per cent of the total weight of the wheat. This lot was first scoured to break up the smut balls and this operation always breaks up some wheat, which is lost. The smallest loss was 0.58 per cent. This wheat was washed and dried twice. There is usually less loss in drying large quantities of grain through the drier than small quantities. This lot had 0.4 per cent more moisture after drying than the original grain contained. The loss would have been approximately 1.0 per cent, if the moisture had been the same

after drying as before. The average loss in weight for the entire 17 lots was 1.12 per cent.

No bad effects from the washing and drying of the wheat were noted in the milling and baking of these samples.

CONCLUSIONS

Smut can be removed from wheat by washing. The wheat will be left in a condition that is satisfactory for milling and baking. Flour made from wheat that had been washed and dried twice was baked, and the bread showed no deleterious effects of smut, washing, or drying.

There is a loss in the weight of the wheat in the washing process when it is dried back to its original moisture content. This loss depends upon the character of the foreign material, the amount of smut present, and the breakage of the wheat kernel, and the treatment given. The lots of wheat that were scoured showed a greater loss in weight than those lots that were not scoured.

The test weight per bushel varies according to the condition of the original grain and according to the treatment given. If the original grain was covered with smut spores, the test weight per bushel after the final process was heavier. If the wheat did not contain too much smut, the test weight per bushel was lighter after the final treatment, provided it was not scoured. If the wheat were scoured, the test weight per bushel was heavier after the final treatment.

sheet metal was procured, a couple of center punch marks made in which the adjusted divider points would exactly fit. Then, similar markings, measurements and divider settings were made on the small end of the same gear tooth, after which the distance was accurately measured and recorded upon the metal sheet, of the exact distance from the pitch circle to the face of the mortise gear at the point where the edge of the mortise gear was marked by the center punch. A second set of dividers was used on the back, or small end of the gear tooth.

The old wooden cog selected by Mr. Davis was a good-looking one of good shape with a center line marked on either end from the gear face to the top of the tooth. A center punch mark was made exactly where the center line and pitch circle crossed each other and a small piece of the thin sheet metal was worked out to stand fairly upon the face of the mortise gear. Then an awl hole was made exactly opposite the center punch hole in the center of the wooden cog. With a small nail driven into the hole in the thin metal and into the center hole in the cog, lines were scratched carefully on the metal around the tooth and the metal was then carefully cut away to the lines, leaving a sheet metal templet of the large end of the wooden cog. A similar templet was then made for the small end of the cog, after which all the cogs were knocked out of the mortise gear.

After insisting that each and every cog be fitted into its mortise and against the face of the gear as perfectly as possible, Mr. Davis insisted upon the same careful fitting of the triangular keys or wedges, one of which was to be driven between each pair of cogs all around the gear to hold the 47 wooden cogs securely in place.

"Mr. Smith" said Big Bill, "if you will pack the other set of cogs into a keg or can, packing them as tightly as possible, and then fill the vessel with linseed oil and keep the cogs covered with oil until they are required for use, then, when used, those cogs will be found almost independent of weather conditions and will not shrink or swell during wet weather or dry."

Mr. Davis brought forward the old wooden cog, upon which he had marked the center and pitch circle lines. He then hunted up the center punch marks on the mortise gear and laid off on the blank tooth adjacent to that mark, the height of the old tooth and made a chisel mark at that point, showing the height to which the blank cogs must be turned down.

As soon as the gearing had been turned and smoothed to proper size and shape, Mr. Davis located the pitch circle on both outer and inner edges of the gear-ring and with a corner of the sharp file tang, he marked a light cut representing the pitch circle. This was done on both edges of the tooth ring, after which the filling between the cogs was knocked out.

Mr. Davis then got out the two pairs of calipers and tested them for adjustment in the center punch holes in the piece of sheet metal. Upon the face of the tooth adjacent to the mark on the gear casting, a center line was erected in the middle of the tooth blank. Next, by the aid of a straight edge, the center mark was carried along the face of the cog and down to the casting on the back, or short side or edge of the cog. For locating the center line properly the little straight edge was placed fair with the front end center mark while the other end of the straight edge was placed exactly fair with the center of the shaft in the mortise gear.

The two sheet metal templets were then brought into use. A small nail put through the center hole in the larger templet and into the intersection of the pitch circle and center line on the outer end of the cog. The templet was rested or held fair with the gear casting, then the form of the gear tooth was marked around the templet. The operation was repeated at the smaller end of the cog with the smaller templet. Then, by chiselling the cog down to these two end lines, a perfect gear tooth was formed and it only remained to shape the remaining 46 teeth in a similar manner.

First, however, the cogs must be spaced off and Mr. Davis "stepped around" the gear on the outer

Hints for the Elevator Millwright

Big Bill Davis Shows Why Half-Finished Cogs Are Desirable in Waterpower Feed Mills

By JAMES F. HOBART

THAT important bit of mechanism in the water-driven feed mill—the mortise gear—was acting up in the Smith plant and so it was that Mr. Smith sought out Big Bill Davis in hope of getting some expert advice on the trouble.

"I'd like you to come out as soon as you can," he told Big Bill, after explaining the difficulty, "because breaking three sets of gears in nine weeks, as we have, is apt to become rather expensive."

"Yes, it is," agreed Mr. Davis. "But let's drop in the hardware store first and see if we can't find a set of cogs that will last longer than three weeks."

At the hardware store Mr. Smith gave his order. "That is the right size of cog," he said, after looking at several, "and they are hickory, too. Let me have two sets of 47 each." And he laid the fully-finished cogs on the counter.

"Just a minute, Mr. Smith," interrupted Mr. Davis. "Do you always buy fully-finished cogs for your mortise gear?"

Mr. Smith seemed surprised.

"Yes," he answered. "I didn't know there was any other kind."

"Why, yes, there are the half-finished cogs, with the tenons and key dovetails all finished, but with the tooth end of each cog left blank. And, if you want a mortise gear which will run for a couple of years, or until all the cogs are worn too thin to carry the load upon them, then you just take along the half-finished cogs, instead of the finished ones."

"All right, Mr. Davis, you're the doctor, but I wish, as soon as we get started for the plant, that you would tell me why you prefer the half-finished cogs instead of fully finished ones."

"Mr. Smith," asked Big Bill as they started for the scene of the trouble, "when you put in a new set of cogs, isn't there usually one or more, which bump heavily, each time certain of the new cogs reach the pinion?"

"Yes, Mr. Davis, that is just the way in which new cogs work and some times the millwright has to ease-off some of the new cogs by paring their sides with a chisel."

"Just so, Mr. Smith, and the cogs which have to be trimmed down and weakened are the ones

which chance to be placed in mortises which have been thrown more or less out of their proper position because of misadjustment of some of the dry sand cores in the mould in which the mortise gear was cast.

"It is like this, Mr. Smith: You set a gear full of fully-finished cogs and they must each stand in place and the cogs must all stand in accordance with the manner in which the cores chanced to be assembled in the gear mold. The two or three cogs which knock and which have to be trimmed are the ones which cause the thumping and knocking as the mortise gear revolves strain is brought upon the out-of-alignment cogs and after a while, one of them breaks or is crushed sidewise. This brings excessive stress upon the adjacent cog or tooth and after a while, these give way, and, first thing you know, a lot of cogs have been broken out of the mortise gear, and a new set of cogs is again necessary! Isn't that the way in which the matter works out?"

"Yes, Mr. Davis, that's the way, exactly. I see now, where the trouble is, but how are you going to get round the difficulty?"

"By putting in a set of half-finished cogs, Mr. Smith, then finishing up the cogs after they have been keyed firmly in place."

Upon arriving at the elevator and mill, Mr. Davis found men at work removing the old cogs from the mortise gear and he stopped them until he could locate the pitch lines of both mortise gear and pinion. He placed the pinion accurately in mesh on a part of the mortise gear where the remaining cogs were in good condition, then Big Bill procured a pair of dividers and opened them until they would exactly span both the gear and the pinion teeth at a point where the gear teeth meshed properly. The dividers were adjusted so as to span either a tooth and a space of the pinion, or a cog and a space of the mortise gear. Then, with a center punch and a sharp cold chisel, Mr. Davis marked the pitch circle on a tooth of each the pinion and the gear and then made a row of punch marks on the edge of the mortise gear, just opposite the pinion tooth on which the center or pitch circle had been marked. A piece of non-rusting

pitch line with the dividers set to the punch marks on the sheet of metal. Possibly the dividers had to be adjusted several times before they were made to step around the gear in exactly 47 spaces, but that was soon accomplished and punch marks made on each cog at the point on the pitch circle where the dividers landed. The same operation was repeated on the inner or smaller ends of the wooden cogs, then with the two templets adjusted accurately to the center hole on each cog, the teeth were marked out around the two templets.

Then, the cogs were chiselled and finished to shape, every sharp corner removed and the gear was put to work and found to run smoothly. There were no high or "bumpy" cogs, because each had been spaced after being in position.

CUT IN WHEAT ACREAGE APPEARS DIFFICULT

The Federal Farm Board, in pressing its program for restriction of wheat acreage, possesses certain weapons of coercion, and the weapon of persuasion through co-operative action by which group interests may be made to supersede individual interests in some degree, as yet undetermined. Whatever the effectiveness of these weapons, the success of the program must depend in large part upon the direction and force of traditional and accustomed incentives of individual wheat growers. The character of these incentives, as they appear in the various wheat-growing sections of the United States, is the subject of the latest issue of "Wheat Studies," published by the Food Research Institute.

The study proceeds on the reasoning that the natural tendency of wheat acreage, region by region, is influenced by the trend of wheat prices and by the trends of prices of competing farm products; by the place of wheat in rotation systems and in the general organization of the agricultural enterprise; by changes in production methods; by pests and diseases; and varietal improvements. All these are discussed by region, and the indicated conclusions checked by an examination of the trend of acreage since 1910. In some regions it appears that the natural tendency is toward reduction of wheat acreage, but in the more important wheat-growing areas the natural incentives appear to favor expansion from the recent level.

The study closes with the following summary: "All told, then, the outlook seems not to be for notable and immediate reduction in the United States wheat acreage; the existing and familiar economic incentives of wheat growers seem not to be such as to induce contraction from within. Nor are we convinced that wheat farmers will forthwith adopt the program of contraction as the expression of individual self-interest. Success presupposes the development of a new set of incentives. The Federal Farm Board is faced with difficult and time-consuming tasks in ascertaining with some precision where wheat acreage ought to be reduced, and in determining what ought to be set forth as the desirable alternative uses of land. Seemingly, however, both tasks need to be embraced before appeals to producers through local co-operatives can become adequately effective. The position of the farm board is at present developmental, advisory, and educational. But it need not remain so.

"It would lie within the discretion of the board to limit loans in event of non-reduction and extend loans in proportion to restriction of acreage.

"Hope of concordance between farmers and the Federal Farm Board seems to us to lie in the development of co-operative associations and the concomitant growth of class solidarity, such that a program of acreage control can receive the strongest support throughout all the ramifications of the national organization. The Agricultural Marketing Act places wheat growers in a position, with the support of public funds, to effectuate horizontal integration. Adjustment of supply to demand is prerequisite to persistently successful integration. Growers cannot take the one and leave the other. It is thus from every point of view advantageous, as soon as possible, to have wheat growers brought

squarely to face the choice between their accustomed individualism and the new collective policy. Co-operative organization is under way vigorously, but it necessarily takes time. With allowance for the time element, agricultural co-operative association is on trial."

The pleas of farm board members broadcast in an effort to produce a cut in wheat acreage have

met forceful opposition from some quarters. A state official in the Northwest, for example has declared that a declining Spring wheat acreage is hardly in order when there is so often a shortage of this strong type of wheat to mix with weaker wheats. There is never an over-production of high quality wheat, he says, of good protein content and of desirable types.

Mill Storage of Varied Types May Hold U. S. Grain

IN CONNECTION with the farm board's deal with millers, by which grain of the stabilization corporation is to be stored in mill elevators, the type of facilities which mills have to offer is of special interest at this time.

The grain storage facilities of the Larabee Flour Mills Company, nucleus of the Commander-Larabee Corporation, offer a good illustration of the various types of elevators controlled by mills. The Larabee

represented by the mill belts of the company.

Deep sand underlies the main plant, and when the new elevator was built 2,038 concrete piles were driven down for the anchor. Grain received at the main mill elevator comes in over two track scales that register anything up to 60 tons.

The inception of the Larabee Flour Mills Company, whose grain storage facilities have expanded so rapidly, was at Stafford, Kan., in 1899. Frank



LARABEE ELEVATOR, ELWOOD, KAN.

concern now owns and operates over 40 country elevators and has options on dozens of other stations throughout the Southwest. To serve the needs of the company's mill at St. Joseph, Mo., largest flour-producing unit of the corporation, a new 500,000-bushel plant has just recently been acquired. It is located at Elwood, Kan., just across the river from the mill. By way of the bridge, the Elwood plant is about two miles from the mill. This storage, illustrated here, supplements the modern concrete elevator capacity alongside the mill in St. Joseph. The latter tanks, contents of which are safeguarded by the Zeleny Thermometer System, have a capacity of around 1,500,000 bushels.

Ashby Woodson, member of the St. Joseph Grain Exchange, is manager of the Larabee properties described. E. T. Looman is elevator superintendent.

Protein tests are made on every car of wheat received at the St. Joseph elevators, or the Elwood plant of the Larabee company. W. L. Rainey, chemist, is in direct charge of the plant laboratory that checks against the findings of outside grain inspectors.

The St. Joseph grain storage units of this firm stand only about a quarter of a mile from the Missouri River, but the water highway, as yet, never has been used for transportation of the plant's wheat or flour. However, if the Government project now being worked out, is successful, and the channel cleared to a sufficient depth, the company will find itself in a splendid position to take advantage of the proposed barge-line service up and down the river.

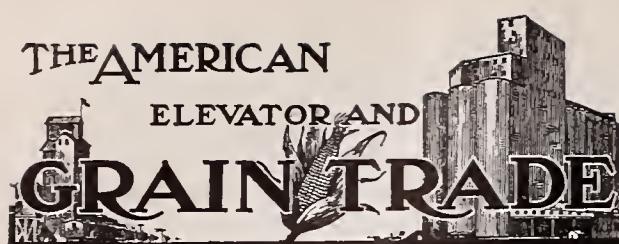
Some idea of the vast array of grain-handling equipment necessary to furnish this mill storage is to be had by considering the fact of the mileage represented by conveyor belts. There are about four miles of conveyor belting in operation in the St. Joseph mill's elevators. Additional mileage is

S. and Fred D. Larabee founded the concern. It was not until 1917 that the original milling and elevator plant of the company was erected in St. Joseph. Walter C. Smith is now president of the Larabee unit of the Commander-Larabee Corporation, of which W. H. Sudduth is president.

HOW CORN BORER WILL BE FOUGHT IN 1930

Before a group of about 100 agricultural engineers and representatives of the farm-implement industry, demonstrations of the use of machinery in controlling the European corn borer were made on the Government farm at Toledo, Ohio, recently. It is now generally recognized that machinery offers the most hope of any of the control methods tried thus far.

The machinery demonstrated was of two general types—implements which the farmer ordinarily uses in cultivation and harvesting, and devices the special object of which is to destroy the borer. Modifications of the manufacturers' standard machinery, carrying special attachments developed by the department engineer at Toledo, were demonstrated. Among the implements of this type demonstrated were plows designed to completely cover up stalks left standing; standard makes of corn binders and ensilage harvesters provided with attachments for cutting off the stalk at the surface of the ground; sled, wheel, and hand-operated stalk shavers cutting off stalks at the ground; and dump and side delivery rakes for cleaning up the ground. The machines developed specifically for destruction of the corn borer, which were demonstrated and which are now only in the experimental stage, were three types of mobile field burners using oil and a mobile steam sterilizer for destroying borers in the plant material.



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Official Paper of the
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CHICAGO, ILL., APRIL 15, 1930

GRAIN GRADE SCHOOLS

TO BUY and sell grain intelligently the modern elevator manager must have a practical working knowledge of Government grain standards and how they are determined. In recognition of that fact, an increasing number of managers are aggressively going after what their predecessors of the last generation never gave much attention—a practical education in grain grading.

Co-operating with managers in this program are various agencies, including state colleges and Federal bureaus. W. P. Carroll and E. L. Morris, Federal grain supervisors, started from Kansas City, April 5, on a tour of a dozen different towns in the Southwest, and are now winding up the last of their short courses on grain grading held at these places. A successful grading and management school was also held in Lincoln, Neb., last month.

Grading schools are an opportunity that will be extended as managers in other sections let their interest be known to Federal and state agencies equipped to handle such projects.

HANDLING RYE

JOHN H. COX, whose article on wheat washing appears in this issue, has called attention to Government data recently assembled on the removal of ergot from rye by use of salt water and the influence of such treatment on the rye. Ergot was a very serious grading problem in the 1928 rye crop. Discounts frequently were one cent per one-tenth of a per cent ergot.

It has been proved possible to remove prac-

tically all ergot found in rye by washing the grain in a 15 per cent salt solution. With plump, heavy rye, a solution containing a higher percentage of salt could be used. There is an increase in the test weight per bushel of the rye after it is washed in a salt solution, probably due to the class of rye used; for if it originally contains a high percentage of light shriveled rye, great weight gain is to be expected.

It is possible to remove practically all traces of salt from the grain, at least from an experimental standpoint, by rinsing in a sufficient volume of fresh water. Probably there would not be so complete a removal of the salt in actual commercial practice.

In trade practice, of course, grain that has been washed is mixed with natural or unwashed grain, so that the washed grain is only a small percentage of the total quantity. This mixing would also occur with rye washed with salt water for the removal of ergot, and the percentage of washed rye occurring in the mixture would be small.

WASHINGTON AND MOSCOW

OUR Government, through the Agricultural Marketing Act, has authorized a withdrawal of just \$500,000,000 from the Federal treasury for loans and other forms of aid to farmers through co-operative associations.

In April, 1930, the Union of Socialist Soviet Republics announces a 500,000,000-ruble or \$250,000,000 line of credit for farmers available through their co-operative associations.

The United States has not officially recognized the Moscow government, yet a certain kinship between the American and Russian governments is made clear by the similar manner in which "farm relief" is being handled by the administrations in Moscow, U. S. S. R., and Washington, D. C., U. S. A.

The Moscow government has defaulted in the payment of Russian bonds issued under the Czarist regime. That is the chief excuse of the Washington Government for refusing recognition to the soviet state. But Washington defaults in fulfilling its obligation of protection to free, competitive industry when it subsidizes the co-operative type of business and attempts to divert trade to it at the expense of private companies legitimately established.

BUILDING ELEVATORS WHERE
THEY ARE NEEDED

AN ECONOMIST for the Federal Farm Board, E. J. Bell, Jr., has reviewed the possibilities for the erection of grain storage facilities at various points along the grain trade route, but offers hardly any suggestion except that the proposition is a puzzling one.

The feasible locations for new storage are four in number—on the farm, at country shipping points, at interior concentration points and at terminal markets. There are, as additional possibilities, the storing of the grain in box cars and on the ground, which Mr. Bell dismisses as uneconomical.

Mr. Bell states that congestion in terminal elevators unduly depresses cash grain as compared with futures, and that while it cannot be

proved it is always profitable to hold wheat after the harvest, the growers may be forced to hold more of it if the existing marketing machinery cannot handle it rapidly enough. Where, then, put such new storage as is needed? Farm storage prevents congestion, preserves the identity of good country run wheat, permits shipping to the best markets and costs less than country elevators to construct. On the other hand, it adds a new expense to marketing, bad roads may hold the grain where it is when the market price is right, and there are few facilities for reconditioning.

Country elevator storage relieves terminal congestion, can readily send its wheat to the best market and saves the farm storage handling. Construction, however, is expensive, and it is difficult to determine how much to build in any community.

Diversion-point storage, established at railway points where freight rates are equal to several consuming markets, could do away with most of the disadvantages of the smaller storage places and could rival the terminal markets, were it not that it also adds the expense of a handling that does not exist when the grain moves direct from field to terminal.

Terminal markets can draw from wide territories. They can be constructed at the lowest cost per bushel and they can have—although they do not always—the best facilities for reconditioning. They keep handling costs down to a minimum.

The problem will never be solved if it is taken for granted that a campaign of county elevator building, or terminal elevator building, or diversion-point elevator building will make conditions ideal. Farm storage, and all types of market storage, country and terminal, must be developed together. Each type is a necessary part of the system.

STORAGE FOR U. S. GRAIN

SO FAR as millers are concerned, the co-operative grain storage arrangement negotiated with them by the Federal Grain Stabilization Corporation, looks like a success. It is also temporarily relieving the situation for the corporation which must have some place to store its wheat. Just how much the plan will mean in terms of erasing a surplus or in effecting farm relief is questionable.

President Milnor, of the stabilization corporation, announces that many responses, in the form of signed agreements, have already come in from the more than 3,000 milling companies solicited for contracts to store Government grain bought by the corporation. Millions of bushels of the corporation's wheat already have been sent to mill elevators in the Southwest and Northwest. More will follow, and the millers thus are assured of ample supplies for export milling requirements. And if they can't stir up the export flour trade, the Government will buy back the wheat.

What will happen though, if the millers are not able to ship abroad as flour, say 60 per cent of the corporation's wheat, by the time the new crop starts marketward? This is only one of a series of puzzles that the corporation, through some hocus pocus, is supposed to solve by this summer.

THE AMERICAN ELEVATOR AND GRAIN TRADE

EDITORIAL MENTION

An Iowan claims to have developed a new hybrid grain which resembles barley in field appearance, rye in kernel color, and wheat in kernel formation. It only resembles corn in that it is grown in the Hawkeye State.

The Canadian wheat pool has reduced initial payments on all coarse grains. The initial payment on rye, for instance, has been scaled from 80 to 45 cents. Wheat farmers are not the only ones involved in the pool's hard times party.

President Hoover has announced that Alexander Legge will probably continue as chairman of the Federal Farm Board when his present term expires July 15. Mr. Legge, no doubt has found that he has started something he can't finish—in a year anyway.

A probable production of 550,300,000 bushels of Winter wheat is indicated by the April crop condition report; for Hard Red Winter the total indicated is 342,000,000 bushels—the same as last year's yield. Less of a potential surplus is represented by Soft Winter wheat indication of 169,000,000 bushels, 22,000,000 bushels less than last year's harvest.

Mills in the United States have storage space for between 200,000,000 and 300,000,000 bushels of wheat. A quarter of that capacity under existing arrangements, may be taken over for Government wheat. That plan is all right for the pre-harvest period, but the fact remains that the Government cannot dispose of a surplus by moving it into mill elevators.

Dr. C. O. Swanson or others who, in the future, may develop bigger and better or smaller and finer wheat hybrids, may patent their new varieties just as anyone may patent grain handling apparatus. That will be one of the results attendant upon the passage by Congress of the Townsend-Purnell Bill. The plant breeder thus would be given the same protection as mechanical and chemical inventors. He deserves it.

With terminal facilities taxed with a large carryover of wheat, and with mill storage being signed up to hold surplus grain bought by Federal agencies, it is difficult to see where new crop wheat will be stored after about the third week of harvesting in the Southwest. Acreage reduction was never so badly needed. But to think that substantial acreage cut will be effected while the Government is virtually guaranteeing a fairly good price, is to daydream.

The chairman of the Federal Farm Board is apparently getting a little more anxious than his previous utterances have indicated about the accumulating stocks of wheat he is buying. He is now suggesting that he may send special agents abroad to try to make sales. Any holder of wheat who is prepared to sell at or near the market does not need to send out commercial travelers, for the market system provides every

facility for doing business without resorting to such expedients. Those responsible for marketing the Canadian crop must watch carefully what the Federal Farm Board does, for its position is the most threatening feature in the whole situation. In the meantime, it keeps advertising to the world the excessive character of the United States surplus.—*Market News* (Winnipeg).

Secretary Hyde's suggestion to the United States Senate, that grain exchange rules be amended to further restrict deliverable grades, is one that has been before exchanges and Government authorities for a long time. It is not as simple and good an idea as it sounds. Mr. Hyde urges it for the protection of buyers, but if the proposed restrictions were too drastic, the buyer would be hampered, rather than protected, because of the difficulty he would have in getting an offer guaranteeing specific delivery of scarce grades with no alternative.

CROSS SECTION NOTES ON THIS ISSUE

Results of a comprehensive study of washing smutty wheat on a commercial scale under eastern conditions, reviewed by the men who made the tests in elevators and elsewhere: Page 603.

Ceremony attendant upon the opening of one of Kansas' newest elevators: First page.

An example of the widely varied types of elevators embraced by the term "mill storage" in 1930: Page 605.

Following a car of grain through a terminal market with reference to the minimum and maximum handling charges enroute! Pages 599-600.

First-hand news in the dispatches of correspondents represented in the "News Letters" department, beginning on Page 613.

Protecting stored grain against insects: Page 601.

Technical hints for the elevator millwright: Page 604.

Bean news department: Page 624.

Official review of the first quarter hay trade in American markets: Page 619.

Seed news for the seed trade season: Beginning on Page 631.

For the terminal market dealer: A department beginning on Page 608.

The Kansas State Grain Inspection Department is doubling the capacity of its protein laboratory at Hutchinson. Additional new equipment is being installed—enough to make it the world's largest protein laboratory. More grain laboratory news is the purchase of large nitrogen apparatus by the Omaha (Neb.) Grain Exchange, and a complete set of nitrogen equipment for the Corn Products Refining Company. The latter order will add nothing to commercial laboratory facilities in this country, however, as it is being shipped to the concern's branch in São Paulo, Brazil.

Surprise was expressed in many quarters because of the recent posting of over 1,000,000 bushels of wheat held in a Chicago elevator

as out of condition. The real surprise is that such occurrences are not more frequent. The majority of Chicago elevators were built 30 or more years ago, and since 1900 the replacement of destroyed and obsolete storage has been tardy. A point made by a staff writer of the *Chicago Tribune* is that while deterioration must be expected in grain, each elevator should have facilities to remedy this. "But warehousemen" he says "maintain that the Illinois laws—there are pages of statutes about grain storage—are so hampering that it is not profitable or even legal to install them in public houses." They even declare the laws are so restrictive that no money can be made in the storage business now. They go further and assert that the Government's corporations themselves won't be able to afford good storage if they follow the requirements of this Illinois law. Some weight is given this contention by the fact that private capital is sternly staying away from the building of more space. Probably a reform in the laws is the first step to be made toward better storage. Claude D. Stephens, an engineer, has suggested that neither the board of trade nor engineers were consulted about the present laws and that these should be represented if the legislators try to frame anything to encourage capital to get into the storage business.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of AMERICAN ELEVATOR AND GRAIN TRADE, published monthly at Chicago, Ill., for April 1, 1930.
State of Illinois } ss.
County of Cook }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared A. J. Mitchell, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the AMERICAN ELEVATOR AND GRAIN TRADE and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Mitchell Brothers Publishing Co., 431 S. Dearborn St., Chicago, Ill.
Editor, H. K. Ferguson, 219 N. Oak Park Ave., Oak Park, Ill.

Managing Editor, Richard Pride, 3523 North Racine Ave., Chicago, Ill.
Business Manager, A. J. Mitchell, 4820 Kimbark Ave., Chicago, Ill.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

A. J. Mitchell, 4820 Kimbark Ave., Chicago, Ill.

A. H. Mitchell, 4818 Dorchester Ave., Chicago, Ill.

M. B. Mitchell, Ottawa, Ill.
John W. Mitchell, Washington, D. C.
Sheridan Trust & Savings Bank, Trustee, Estate of John E. Bacon, Chicago, Ill.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (This information is required from daily publications only.)

A. J. MITCHELL,
Business Manager.
Sworn to and subscribed before me this 21st day of March, 1930.

[SEAL]

W. F. WARRICK
(My commission expires May 8, 1932.)

J. C. MURRAY
ChicagoW. C. MITCHELL
Minneapolis

NEWS OF THE TERMINAL MARKETS

NO EUROPEAN WHEAT DEMAND, SAYS DR. COULTER

Europe is no longer a market for surplus American wheat as western European countries have increased their wheat acreage 1,000,000 acres a year since the war and are capable of supplying their continent, Dr. John Lee Coulter, head of the Federal Farm Board's acreage adjustment program, told Northwest farmers at a recent meeting in Minneapolis.

He said that vast quantities of flax, alfalfa, clover, and beef cattle are imported by the United States each year and these could be raised in this country instead of wheat.

In brief, Dr. Coulter's suggestions encompassed the shifting of 1,000,000 acres in the Northwest from wheat to flax, the shifting of another 1,000,000 acres from wheat to feed crops, and the breeding of 400,000 milk cows to beef sires for production of beef instead of dairy cattle.

A WOOD WHO WOULD—AND DID

By ELMER M. HILL

In Buffalo, N. Y., about 1898, George B. Wood decided that the grain and feed brokerage and commission business suited him well enough to choose it as a life vocation—so he did. And in all his 32 years of activity he has found no reason to regret his choice.

Never having jostled about from one firm to another, he declares, has shown him advantages.



To appreciate his statement it is necessary to remember that Mr. Wood is the junior member of the firm of Seymour-Wood, Inc., in the Buffalo Chamber of Commerce building. He is vice-president and treasurer and exceedingly well-spoken of in grain trade circles.

Mr. Wood also held the office of director of the national association for a period of six years, and is, of course, a member of the Buffalo Corn Exchange.

"This business," Mr. Wood says, "is more or less given to routine, as everyone knows. Therefore it is difficult to offer any suggestions as to 'how to be successful'. However, Mr. Seymour and myself make it a point to keep in close contact with market conditions, so that we may advise safely and wisely. It is price and quality which interest our clients."

Mr. Wood believes that Buffalo is destined to become the greatest grain and feed center in the United States because of the interest shown in this desired goal. He further contends that the present growth and development of the industry in Buffalo is due in large measure to a sentiment and trade feeling which brings that city the promise of advancement in the grain and feed milling interests.

While Mr. Wood does not entirely advocate an "early to bed" life, it is interesting to note that he rises very early and is one of the first to appear on the exchange floor every working day of the year.

"There is hard work connected with anything potentially successful," he contends, "and in order for any person to get ahead, he or she must be up and at it, just a little ahead of the next fellow."

Some years ago, Mr. Wood was famous for his swimming records, but in recent years he has given more of his spare time to rowing, canoeing,

and his favorite hobby—rose culture. Mr. Wood prides himself on developing some of the most exquisite specimens in Erie County.

The firm of Seymour-Wood, Inc., does not engage in any active advertising because of wide acquaintanceships throughout the country, according to Mr. Wood.

"While I have always been a Mason," he says, "I have never found any time for club or fraternity life. This office brings me into mighty close contact with my associates and out-of-town friends. While I do not really consider myself old, nevertheless, I am an 'old timer' in the business—and I like it with all of its ups and downs."

COTTONSEED EXCHANGE FOR DALLAS?

Texas will have a cottonseed exchange before the first of next year, probably about the time the 1930 cotton crop begins to move, according a report current among southern grain men. It is believed that the market will be established in Dallas.

The matter of opening an exchange for listing of cottonseed products has been referred to a committee of the Texas Cottonseed Crushers Association which will meet at Corpus Christi the latter part of the month. This committee has been studying the operations of the cottonseed exchange at Memphis and will report to the association.

The committee's report, it is said, will undoubtedly be favorable to the establishment of the exchange.

NEW YORK EXCHANGE DISPLAYS ARRAY OF "DANCING GIRLS"

By C. K. TRAFTON

A dozen ravishing "females," portrayed with life-like accuracy by members of the New York Produce Exchange, furnished the outstanding feature of the fourth annual show and dance given under the auspices of the exchange bowling league at the Hotel Astor on March 28. Prominent also was the universally excellent work of the cast, the pleasing rendition of several vocal solos, and the capable singing, drilling and fancy stepping of the supporting chorus. Featured among the "sheep in wolves' clothing" were the four "dancing girls," Harold J. Henderson, George Prentzel, Jr., Henry C. Zwing and Arthur E. Standers, who actually surpassed the wonderful records of former years and, on their second appearance in greatly abbreviated Oriental costumes, threatened to halt the show.

The "ladies" in the cast of the comedy, "Seven Chances," which was chosen for this year's show, in order of their appearance, were: Arthur E. Donnelly, Claude L. Seale, E. Stuart Galloway, John F. Gerard, Joseph B. Cleaver, Edward Engstrom, Harold H. Daly, and Joseph M. Nugent. The male roles, also in the order of their appearance, were taken by Albert O. Matt, Walter Moore, George B. Schold, Bernard V. McKinney, Charles P. Lambert, Frank F. J. Wagner, and Whitman B. Terry. The chorus, disguised as "Club Members," were: Walter I. Chudleigh, Fred A. Colby, Charles A. Connor, Andrew Farley, Harry F. Grothusen, Harry M. Lane, James W. Lee, Irvin T. Marine, and Chris. K. Trafton.

The actors found great recompense in the generous applause and vociferous laughter of the audience of close to 1,400 which crowded the 28 boxes and the huge ball-room floor. After the show many highly congratulatory comments were heard regard-

ing the fine work done by all concerned, the very interesting and amusing story of the play, and the remarkably attractive and sartorially perfect costuming. The committee in charge, with their customary generosity, spared no expense in their efforts to assure complete success in every respect, but the "sold-out" house more than offset the unstinted outlay, so that the affair was a huge success financially as well as artistically and socially. The latter feature was appreciably enhanced by the fact that the world-renowned Meyer Davis Orchestra furnished the dance music.

A. L. FLANAGAN ELECTED HEAD OF MILWAUKEE EXCHANGE

A. L. Flanagan was elected president of the Milwaukee Chamber of Commerce on April 7, succeeding A. L. Johnstone who has been the head of the chamber for the past year.

Mr. Flanagan was born on a farm in Clay County, near Sioux Rapids, Iowa. When only three years old his parents moved to Heron Lake, Minn. After graduating from the high school there he secured a position for the St. John Grain Company which operated a line of country stations. He stayed with this company for eight years and learned grain handling from the standpoint of the country eleva-



PRESIDENT A. L. FLANAGAN

tor operator. When he left he was manager of the grain department.

He then became associated with the Fraser-Smith Company of Minneapolis. He spent the year 1914 in buying grain in the country and he divided his time between the terminal markets of Minneapolis and Duluth. In July 1915 he came to Milwaukee and opened the branch office of the company in this market.

Mr. Flanagan has been officially connected with the Milwaukee chamber since 1921 when he was elected a director. He served in this capacity until 1927 when he was chosen second vice-president. In 1928, he became first vice-president which office he held for two terms. He also served on many important committees, notably the finance committee and the committee on transportation.

Mr. Plumb was re-elected secretary-treasurer having served no less than 21 years. E. La Bude was named first vice-president, and O. R. Sickert second vice-president. W. A. Hottensen, J. Victor

Loewi, and Frank J. Phelan were chosen directors. Charles F. Coughlin, William Eiteneier, and Carl A. Houlton were made members of the board of arbitration and Thomas M. Corcoran, S. G. Courteen and A. L. Johnstone of the board of appeals.

OMAHA GRAIN MAN IN NEW POSITION

The Farmers National Grain Corporation has again been forced to draft a member of the private grain trade in its efforts to aid the farmer, engaging E. W. Taylor of Omaha, president of the Nye-Jenks Grain Company and a former president of the Omaha Grain Exchange, to assist in establishing a facilities division.

Mr. Taylor has been engaged for a two-month period beginning in April, and will help in laying out the foundation for a grain facilities program. The corporation officials plan to further the recently announced program of establishing adequate storage space to handle the oncoming grain crops. A large part of the new division's work is to appraise properties on which co-operatives seek loans for purchases or leasing.

"In the development of our facilities program,"



E. W. TAYLOR

said the corporation's announcement, "we are keeping in mind the limitations of the Agricultural Marketing Act, that no loans shall be made for construction, purchase or lease of facilities unless purchase price and rentals are reasonable and unless it is found that suitable existing facilities are not available for purchase or lease at reasonable price and rentals."

THEY PAY FOR MARKET NEWS AT CHICAGO—\$8,000,000 A YEAR

Firms that are members of the Chicago Board of Trade are spending in excess of \$8,000,000 annually for the lease of more than 200,000 miles of wire for private service in transmitting market reports, it was estimated today by Fred H. Clutton, board of trade secretary.

The estimate, which is based on latest figures of the Federal Trade Commission, is for telegraph service alone and does not include 500,000 miles or more of telephone wires which operate exclusively for board of trade members.

Financial institutions, including banks, commodity and securities exchanges, now operate more than 80 per cent of all wires in the United States while less than 18 per cent are public wires.

Outlets have been added in Idaho and only Vermont and Nevada are without board of trade special wires in this country, the report shows. More than 700 cities are part of the network in the states and cable connections extend around the globe.

"Because of its fertility in grain and cotton production, the Mississippi Valley is blanketed with board of trade members," Mr. Clutton said. "The valley is board of trade territory, just as it is Chicago's. The area is gradually developing from agriculture to industry, offering a field of investors which security houses are only beginning to reach."

An analysis by the board's committee on stock list assigns the Mississippi Valley 51 per cent of the total population; wired homes, 43 per cent; 1929 increase, wired homes, 42.8 per cent; harnessed horsepower, 46.8 per cent; value manufactured products, 45.4 per cent; bank resources, 32.8 per cent and 1929 insurance purchased, 42 per cent.

VOLUME OF GRAIN FUTURES TRADING SHOWS DECLINE AT CHICAGO

Futures trading in grain on the Chicago Board of Trade showed a decline of over 161,000,000 bushels during March as compared with the preceding month, 1,439,282,000 bushels being traded last month and 1,600,526,000 bushels the previous month. The total was divided among the different grains in the following way, February figures being in parenthesis for purpose of comparison: Wheat,

1,028,026,000 bushels (1,277,637,000); corn, 297,395,000 bushels (224,854,000); oats, 38,599,000 bushels (43,717,000); and rye, 75,262,000 bushels (54,318,000).

Average open contracts on the Chicago exchange for March, "short" side of contract only being shown, there being an equal amount on the "long" side, were: Wheat, 172,168,000 bushels compared with 144,719,000 in March, 1929, and 194,850,000 in February, 1930; corn, 49,827,000 bushels against 78,542,000 in March, 1929, and 43,440,000 in February, 1930; oats, 30,327,000 bushels in contrast to 27,320,000 in March, 1929, and 35,322,000 in February, 1930; rye, 15,512,000 bushels against 8,510,000 in March, 1929, and 18,996,000 in February, 1930. The average open contract for all grains at Chicago in March was 267,834,000 bushels compared with 259,091,000 in March, 1929, and 292,608,000 in February, 1930.

Speculation—Useful Right Or Wrong Wasteful?

By DR. JAMES E. BOYLE
Cornell University

MOTION pictures frequently give us a dramatic view of speculation and many orators, who have an axe to grind, paint colorful word pictures of "speculators in foodstuffs." Yet, congress, in the grain futures act, has not only given a warm endorsement to organized speculation on the grain exchanges dealing in future contracts, but has also provided for safeguarding and fostering this speculation.

Most important of all, however, the Supreme Court of the United States, in the famous Christie case, put the final seal of its endorsement on speculation by the competent on the organized exchanges of the country. When the smoke of battle has cleared away, therefore, it may be seen that there is considerable good in speculation—provided it is properly harnessed and put to work helping move the farmers' crops.

Speculation is harnessed when it is organized, put under strict, definite, and widely-known and recognized rules, as on the organized commodity exchanges. Speculation is not harnessed, but is left to run wild, when there are no organizations and no rules to govern it. This we see in our frequent land booms. Prices are kited upward with a feeling that the sky is the limit; then prices collapse with a sickening thud. Such a boom leaves some persons richer, some poorer; but no service to society is performed by such speculation.

Organized speculation, that is, speculation on the organized exchanges, actually does two things which are of service to the farmer and to society at large. First, speculation on the organized exchanges reduces blind and wild speculation in the farm crops bought and sold on the exchange. In the second place, it reduces the cost of getting these crops from the producer to consumer. Before illustrating these two important truths, let me outline the preliminary truth that somebody must speculate in farm products, the only choices being who and how.

Somebody must speculate in the crops. For example, 30 farmers were growing apples on a commercial scale for the city market. Local dealers bought these apples, sorted, graded and packed them in barrels in local apple packing houses. Some of these apples of the better keeping varieties were held for the spring market. There was, of course, much risk in this, for the market might be lower in the spring than in the fall. Then an orator appeared.

He told the 30 farmers that speculators were making all the money on the apples and the farmer

was to blame for it. It happened that this particular year the "speculator" who packed the apples did have a big profit. The orator, therefore, presented the matter at the psychological moment. The farmers were advised to form a little packing association of their own and thereby eliminate all speculation in selling their apples. They were told they would only have to "feed the market" and avoid "dumping", and that would take all speculation out of the business.

This was costly advice, as is much advice given to the farmer. The farmers invested their money in an apple-packing house and began the experiment. But unfortunately for them, they found that prices do not always go up in the spring; about half the time they go down. And this risk of price change is a speculative risk which must be carried by somebody. So instead of eliminating speculation, the farmers, to their great surprise, had merely shifted the speculative risk from the dealer to their own shoulders. The farmers had a perfectly good right to assume this risk if they wanted to; they also had the same right to shift it to other shoulders if they wished. These 30 apple-farmers tried their speculative venture just two years. Both years the prices went down in the spring. They quit in disgust. Their mistake had been in thinking that they, or any other human being, could eradicate speculation in the marketing of this crop.

Another example: The men who buy surplus eggs in the three months of heavy production—February, March, April—and put these eggs away in cold storage till the scarce season in November, December, and January must unavoidably carry some risk of price change. They may make good profits; they may take heavy losses. Their profits, if any, are called speculative profits, because they are rewards for risk bearing. Competition among these egg speculators keeps profits down to a very reasonable level of income on the money invested in it. Society benefits by this speculation, because it prevents an egg famine in the winter. Farmers benefit because it keeps egg prices up in the spring when the big surplus is arriving in market about three times as fast as consumers can eat the eggs.

The speculator is not only the buyer of the surplus; he is the only buyer for this surplus. In the end his profits represent just about what his service is worth. His service means that eggs are higher priced during the three months when the farmer is selling, and lower priced during the winter when the consumer is buying.

Now we come to the two services performed by

THE AMERICAN ELEVATOR AND GRAIN TRADE

Forty-Eighth Year

speculation on the organized exchanges: (1) The reduction of blind speculation; (2) the reduction of the cost of marketing.

If a true picture is obtained of an organized grain exchange, such as the Chicago Board of Trade, it is seen by the observer that first of all this exchange collects market information. Reliable information on crops and prices is assembled with utmost speed from every possible quarter. "To collect and disseminate useful trade information" is one of the five objects for which the Chicago Board of Trade was incorporated. To be useful this information must be true and it must be collected and disseminated quickly and traders who buy and sell on this exchange do so with their eyes wide open, for all the trade and market facts, so far as humanly possible, are placed before them.

When trades are made, the resulting prices are called "quotations," and these actual quotations are disseminated with incredible speed to all parts of the country. Market rumors, which entirely governed the markets in the old days before the organization of exchanges, are now promptly killed. To start a false rumor is to face expulsion from the exchange.

Crop reporting on the Chicago Board of Trade is done only by members who are competent and who are licensed for this job by the board itself. The board can brook no meddling by either amateurs or irresponsible parties in this field where integrity of reports is an absolute essential. So we see that the organized exchange does actually lessen the blind, wild speculation in moving certain crops into consumption.

The second service of organized speculation on the exchanges is to lessen the costs of distribution. With most foodstuffs the cost of distribution is now so high as to cause universal alarm. But more and more, those commodities which are adapted to it are being handled on the organized exchanges. We now have organized exchanges, with future trading and regular quotations in grain, cotton, cotton seed oil, rubber, silk, hides, metals, coffee, sugar, cocoa, butter, eggs, live poultry, dressed poultry, and pork products. Where there is organized future trading the commodity is handled on a lower margin. These exchanges cheapen distribution by harnessing speculation and putting it to moving the crops. Distribution of grain is cheapened by many speculators trading, thereby making it a wide, liquid and continuous market, wherein millers, exporters, terminal elevator owners and other cash grain interests can and do instantly hedge in the future market all their purchases or their sales. Those who make a specialty of studying the market, and who have the necessary financial means, constitute the class of speculators called competent by the supreme court.

The incompetent speculator is unwelcome on a board of trade. A person is incompetent and unfit to speculate on a board of trade if he knows nothing about grain and the world's grain crop situation; if he can not afford to take a loss, or if he is in a position of trust where he handles the funds of others.

People of this kind may speculate at will in town lots, farm lands, oil wells, and hundreds of other items. But they are being more and more discouraged from speculating on commodity exchanges. At present these incompetent speculators are no more than camp followers, lending a bad name to speculative investments made by others who are competent and necessary speculators.

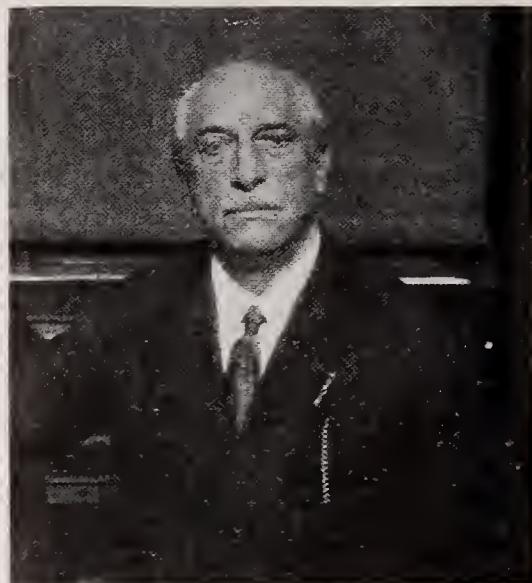
When the actual cost to the farmer of all the commissions paid by all grain speculators in the United States is figured, it is found to be about one-third of a cent a bushel on the grain crop. Since this speculation has made hedging possible, and hedging is a form of insurance which greatly lowers the cost of marketing grain, we are justified in concluding that this is a very cheap insurance.

Speculation by the competent should not be discouraged or hampered; it only needs to be properly harnessed and kept at work. The commodity exchanges, under the dictates of an enlightened self interest, are harnessing speculation and putting it to work under rigid rules.

VETERAN GRAIN DEALER DIES

Another veteran grain man, T. Harry Story, a member of the New York Produce Exchange since 1886, died at his home, 410 Riverside Drive, on March 21. Burial took place on the following Monday.

Mr. Story, who was 66 years old, started as a



THE LATE T. HARRY STORY

boy with E. A. Kent & Co. and later succeeded to the business of his father, W. H. Story & Co. During his 45 years' association with members of the exchange he was prominent on many committees interested in improving trading facilities.

He is survived by his widow.

NEW PRESIDENT FOR GRAIN STABILIZATION CORPORATION

George S. Milnor, appointed last month as vice-president of the Grain Stabilization Corporation, at the annual meeting of the membership of the corporation on April 9 was elected president and placed in charge of operations.

W. G. Kellogg, formerly president, was named



GEORGE S. MILNOR

with S. J. Cottington and E. V. Maltby as vice-presidents; C. E. Huff, secretary; and W. M. Buckles, treasurer. Milnor, Kellogg, Huff, and Buckles constitute the corporation's executive committee. These four men and the following were re-elected to the board of directors; John Hogan, W. H. Settle, E. H. Hodgson, B. H. Lang, and F. J. Wilmer.

Mr. Milnor answered rumors current in the grain trade regarding the Government's policies in operating the stabilization corporation yesterday by stating that there had been no "change in policy,

but there might be changes in the position of the corporation's wheat."

The corporation is not disposing of its "long" wheat, he said, although it might be selling cash wheat and purchasing futures. It has been selling wheat in some markets and buying in others, he said, but declined to admit that the corporation has been purchasing July or September delivery options.

GOOD CORN MARKET

Since we last wrote you the grain arrivals at Peoria have varied from rather light on some days to good on others. Taking the average into consideration, as it has come here, it has enabled the industries to maintain a fair supply on hand and there have been very little—almost no anxiety on the part of the industries. The daily grind now is about 75,000 bushels and the arrivals, supplemented by corn from store, have kept them going nicely. Right now the receipts are quite good. There is a light country movement from a wide territory and arrivals are holding up rather satisfactorily.

Prices here seem to have been good enough to bring the corn and have, we think, averaged very closely to values in other markets on the better grades and probably considerably better on the average on the Sample grade corn. This is certainly a good market, especially for Sample grade and the low numbered grades. We see nothing remarkable in the situation and believe the industries will be able to keep going in good shape and that we shall still need lots of corn.

Oats have been coming to Peoria in light quantities, the arrivals from day to day being only a few cars. This has been the condition in some of the other primary markets. Values here have ranged about equal to the varying prices in other markets.

There is very little wheat indeed coming here. The few cars that have arrived are mostly of low grade types. The reports from country show that farmers are very well along with their work—practically all oats have been sown and fields are rapidly being put into condition for corn planting which will likely begin around May 1.

Weather is very dry and the oats so far as we hear are not yet showing much growth in the field. Rain is needed very badly.—P. B. & C. C. Miles, Peoria, Ill., letter of mid-April.

ADJOURN TRIAL OF CHICAGO GRAIN MEN

The Federal hearing being conducted in Chicago by the grain futures administration in connection with charges of grain-market manipulation by three board of trade members was adjourned at the end of the second day's hearing, April 8, for an indefinite period, due to the illness of a Federal attorney, H. H. Clark. John C. Brooke of Washington is acting as referee in the case.

Constitutionality of the grain futures act was questioned at the opening of the hearing by attorneys for the Chicago brokers, John S. Reddy, Philip J. Reddy, and William B. Massey. The attorney's attempt to meet the Government's complaint on the ground that the futures act unlawfully delegated judicial power to the executive branch of the Government and legislative power to such unofficial bodies as the Chicago Board of Trade was denied.

Another motion for the three grain men demanded a trial by jury on the ground that the proceeding was of a criminal nature rather than an equitable nature. In denying this motion, Referee Brooke said that he has been instructed to be extremely liberal in the admissions of testimony.

The three principal charges against the grain men are, in substance, that the three board of trade men violated regulations of the exchange by acting both as brokers and principals in sales and purchases of wheat during July and August of last year; that they used interstate communication in disseminating "false and misleading information"; and that "through ruses, schemes, and devices"

caused to be sold not less than 345,000 bushels of December wheat at prices both lower and higher than the real prices existing when these sales were executed.

In the event that the grain men are found guilty the Chicago board would be forced to suspend or expel them. Failure to do this would make the exchange liable to loss of its license, the grain futures act provides.

BUFFALO CORN EXCHANGE ELECTS

The annual stockholders meeting for the election of directors of the Buffalo Corn Exchange was held on Tuesday, April 8, 1930. The retiring directors are: J. J. Rammacher, vice-president and treasurer of the Eastern Grain Elevator Corporation; Edgar B. Black, secretary and treasurer, Charles Kennedy & Co.; George P. Urban, president of the George Urban Milling Company.

These directors were succeeded by W. E. Ashe, Buffalo manager of the Pratt Food Company; George B. Wood, vice-president and treasurer, Seymour-Wood Grain Corporation; Dwight K. Yerza, vice-president of Pillsbury Flour Mills, Inc., in charge of eastern sales.

Immediately following the election, the organization meeting of the board of directors was held and the following officers were elected for the ensuing year: President, E. E. McConnell, president of the McConnell Grain Corporation; vice-president M. C. Burns, president of Traders Feed & Grain Corporation; treasurer, G. B. Wood, vice-president and treasurer of the Seymour-Wood Grain Corporation; secretary and assistant treasurer, Fred E. Pond.

CONDITIONS FAVORABLE AROUND PEORIA

No old wheat moving in this section. The new crop seems to be coming along very favorably in this territory, although occasionally you hear a complaint of dry weather. In this immediate vicinity some of the wheat in good soil looks exceptionally well. On thin land it has not made much progress, because we have had very little growing weather so far. The past two days we have had a temperature around 90 and within a week we will be able to tell more about the growing crop of wheat. We do not think there is anything to get alarmed about here.

Receipts of corn are holding up fairly well and also the demand. Cash prices in this market are well in line with all other markets on the good corn, and the poor high demand content corn, is selling to better advantage here than in other markets. We look for a good demand to continue. The receipts of corn that are coming in now are much better quality, the moisture test ranging from 15 to 20 per cent, mostly under 17 per cent, and there is quite a portion of the daily receipts, grading No. 2 and No. 3, with test weight from 53 to 58 pounds, so there is no doubt there will be plenty of good quality corn for milling and feeding purposes.

Receipts of oats are rather light, but there seems to be enough moving to take care of the limited demand. No one seems to be very anxious, either the seller or the buyer. Cash prices here are in line with other markets and we look for a fair demand to continue. Sowing of the new crop of oats is practically finished in this territory, so far not very many oats are up, as the weather has been rather cool, but the last few days we have had warm weather and no doubt next week we will be able to see some of them peeping through.—*Mueller Grain Company, Peoria, Ill., letter of April 11.*

DRY WEATHER AT DECATUR

Dry, windy weather continues here; one notes dust clouds follow plows and harrows as they cross the fields. General condition of our wheat fields is not good and abandoned acreage is increasing, same being usually allotted to soy beans. Oats seeded first two weeks in March have unusually good root growth and good stand. Those put in the ground this month are having a hard time getting started on account of deficient surface moisture.

By far the greater portion of corn ground has been plowed under favorable conditions. The few days of summer temperatures have warmed up the earth very fast. Our usual ideal time for planting corn is around May first, but farmers are so far ahead with their work and as appearances point to a dry, hot season, think they will begin corn planting in the coming week, should weather continue favorable.

The early season and a better price causing some corn owners to think a little more about selling, but they mostly have in mind a price about a nickel to a dime above current bids.

The corn inspections at Decatur continue to show a large percentage of number two and three grades, but the shrinkage in weight of corn shelled out of cribs now as compared to what was weighed in at shucking time is much greater than usual and will be shown in the total of farm reserves later on.

One notes so many of these prairie farms that are not producing the yields they formerly did which raises the question: Are our Illinois lands losing their fertility? We had a look-in recently at the records of a large body of central Illinois land which has been owned and managed by same family ever since the original prairie sod was broken out and the land tilled. These records show that these lands are each year now producing the same average number of bushels of grain as they did forty years ago. This record is made mostly through the proper rotation of crops and good care of the land without the use of artificial fertilizers.

The above should give farmers the hope of raising good crops almost indefinitely in this section and the grain men here may indulge in the belief in a further need of their services in distributing same.—*Mid-April letter of H. I. Baldwin & Co., Decatur, Ill.*

CHANGES IN MEMBERSHIP

Baltimore.—Clarence M. Stickell was admitted to the Baltimore Chamber of Commerce.

Chicago.—The following were admitted to the Chicago Board of Trade: Glen R. Wortman, Enrico Pozzani, William R. Grove, Bertram M. Frank, William G. Kellogg, Ralph H. Neely, Edward M. Hamlin, and Jeremiah J. Nolan. Memberships transferred were those of Charles L. Johnston, Jr., C. Groverman Ellis, Robert S. Sinclair, John F. Brennan, Julius V. Neuhaus, Harvey Kavaner, Orville O'Neill, and George E. Cathcart.

Cleveland.—The Star Elevator Company has withdrawn from the Cleveland Grain and Hay Exchange.

Duluth.—G. C. Sterling, Sidney Wick, W. G. Kellogg were admitted to the Duluth Board of Trade while Marcus Johnson, R. J. Hevly, D. W. Stocking have withdrawn.

New York.—Albert G. Boesel, Sinclair Adam, Leslie Herman, William P. Stewart, Henry A. Block, E. F. Rosenbaum, Oscar Robinson have been admitted to the New York Produce Exchange.

St. Louis.—O. H. Gibbs and Robert J. Flynn were admitted to the St. Louis Merchants Exchange and A. J. Poorman withdrew.

TERMINAL NOTES

A membership on the Chicago Board of Trade was sold to A. Howard, of the L. A. Howard Company, Minneapolis, Minn., on April 4 for \$18,500.

A. Cairns of Winnipeg, statistician for the Canadian Wheat Pool, spent a fortnight investigating crop conditions in Kansas, Oklahoma, and Texas.

A meeting of credit managers of the Northwest feed and flour industry was held in Seattle last month and attracted grain men from all along the Pacific Coast.

L. L. Quinby, veteran member of the Omaha Grain Exchange, was appointed manager of the Farmers West Central Co-op., Inc., an affiliation of Farmers National Grain Corporation.

In an effort to place the barley futures market in San Francisco on an operative basis, F. A. Somers, chairman of the San Francisco Grain Trade Association, has requested R. W. Dunlap, acting Secre-

tary of Agriculture, to establish a new feed barley grade which will conform to the usual type of barley which is traded in by San Francisco mills and grain dealers.

A new booklet enumerating the benefits of being listed on the Chicago exchange has been issued by that body and is called, "Listing Securities on the Chicago Board of Trade."

Early this month, stocks of wheat in Duluth-Superior elevators totaled about 30,000,000 bushels. The total amount of grain in storage there amounted to 37,164,211 bushels. There is little shipping going on.

The corporation of Phalen & Co., Inc., on the Chicago Board of Trade, has been dissolved and is supplanted by Phalen & Co. with Ralph L. Phalen, Richard C. Phalen, Gary Barthell, and Wesley M. Sears as partners.

B. H. Woodworth of the Woodworth Elevator Company is entitled to be known as "the daddy of them all"—or at least a good part of them. He has been elected president of the Infant Welfare Society of Minneapolis.

The new building fund for the Chicago exchange had climbed to \$1,406,512.13 the middle of last month, an increase of \$14,674.34 over the previous month. The membership retirement fund was announced at \$282,295.70.

The Omaha futures market may soon be reopened. In a letter to the Omaha Grain Exchange, Secretary of Agriculture Hyde says he will designate it as a contract market as soon as a minor alteration is made in the exchange rulings.

Wilfred D. Keilholtz, of Southworth & Co., and Miss Marie Evers, Toledo, were married early last month. They are making their home at 157 Dartmouth Drive, Toledo, and will embark on their honeymoon sometime this summer.

Many members of the St. Louis Merchants Exchange and their friends attended a chamber of commerce meeting last month to hear an address by Dr. Jesse E. Pope, noted economist of Washington. Dr. Pope chose as his subject, "A Challenge to the Farm Board."

George E. Booth, second vice-president of the Grain and Feed Dealers National Association and nationally-known grain man, was married to Miss Josephine MacKercher on March 18. He and his bride are at present enjoying a six weeks' honeymoon in romantic Spain.

The grain firm of George W. Matthews & Co., Winnipeg, which went into voluntary liquidation some weeks ago, is expected to resume business. A statement by the liquidators shows a preponderance of assets over liabilities. The firm maintained several branches in western Canada.

Considerable quantities of Canadian wheat and flour have been going into Switzerland by indirect routes. Both Germany and Holland participate in the resale transactions. There were still 200,000,000 bushels of Canadian wheat in the visible supply on this side of the Atlantic early in April.

Middle-western shippers attending the twenty-seventh meeting of the Trans-Missouri-Kansas Shippers Board openly expressed fear that there will be a lack of storage space for the 1930 wheat crop unless immediate steps are taken to bring about the export of grain now in storage.

In accordance with a resolution adopted by the directors of the Chicago Board of Trade, President Bunnell has appointed the following committee to arrange for the dedication of the new board of trade building: Chairman, James C. Murray, vice-chairman Robert P. Boylan, Frank G. Coe, Earle M. Combs, Kenneth P. Edwards, Edward L. Glaser, Arthur S. Jackson, James R. Leavell, Harry H. Loddell, Leeds Mitchell, George H. Tanner, and Kenneth P. Templeton.

Immediate study of the possibility of increasing the terminal facilities of the port of Boston was recommended by Governor Frank G. Allen of Massachusetts in a special message to the state legislature. Governor Allen called attention to the suggestion that a modern grain elevator at South Bos-

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ton would tend to develop export grain business via the new Welland Ship Canal route to Oswego, and then by the New York, New Haven & Hartford Railroad to South Boston.

Members of the new Memphis cottonseed feed futures market staged a banquet late last month to celebrate the passing of the 1,000,000-ton mark in trading in the futures.

George Beeley, formerly of C. A. King & Co., is now representing the Smith-Sayles Grain Company and the Sheffield Elevator. He will spend most of his time "on the road."

Capitalization of the Continental Grain Company of Minneapolis is being increased by \$200,000 and the company has been reorganized. K. S. Templeton, one of the leading stockholders, may come to Minneapolis to assume charge of its affairs.

The differences between the grain trade and the Federal Farm Board are likely to be aired at the annual convention of United States Chamber of Commerce to be held in Washington, April 30 to May 4. About 3,000 delegates are expected to attend.

They're never too old to fall in love. Witness the case of Louis Muller, aged 85, the oldest member of the Baltimore Chamber of Commerce, who recently married Mrs. Amelia V. Allison, widow of the late Reverend D. P. Allison. Mr. Muller was president of the exchange 41 years ago.

Another veteran grain man has announced his retirement. P. O. Paddock presenting his resignation as head of the Paddock-Hedges Company and as a member of the Toledo Produce Exchange. Mr. Paddock was the oldest living member of the latter organization, being 77 years old.

R. W. Putnam, former United States engineer in Chicago, is urging immediate action to provide an interstate harbor on the Illinois-Indiana state line. He claims that the elevators and equipment are becoming antiquated and should be replaced by more modern equipment on the lake front.

While recommending stricter public regulation, Secretary Arthur M. Hyde, of the Department of Agriculture, advises the senate that in his opinion the grain and cotton exchanges render a useful service and "play a necessary and important part in the sale and distribution of these great staple agricultural commodities."

What is reputed to be the heaviest car of feed ever shipped from Kansas City was consigned last month by the Purina mills to the Jefferson City (Mo.) Produce Company. The contents of the car weighed 130,500 pounds and special permission of the railroad company had to be obtained for the loading, as the weight exceeded the specified capacity of the car.

FORMER MILWAUKEE GRAIN MAN DIES

Charles R. Lull, a retired member of the Milwaukee Chamber of Commerce, passed away in Los Angeles, Calif., on April 9, after a short illness. The announcement came as a sad shock to his old associates at the chamber of commerce.

Mr. Lull was born at Troy, Walworth County, Wis., in 1859. He went into the feed and grain business at North Greenfield in a small way and in 1893 he branched out and transferred his business to Milwaukee, where he became a member of the chamber of commerce and passed the remainder of his active business career.

After operating under his own name for a time, the Lull-Franke Grain Company was formed by Mr. Lull and Mr. H. F. Franke. In 1907 this company was dissolved, Mr. Lull continuing under the name of Charles R. Lull & Co., and it was in this firm that both Mr. H. M. Stratton and Mr. P. P. Donahue, of the grain firm of Donahue-Stratton Company, served their apprenticeship in the grain business under Mr. Lull. In 1910 Mr. Lull retired from active business life.

He is survived by his widow, a son, Raymond Mills Lull, a daughter, Mrs. Chas. Rand Richter, and two sisters, Mrs. A. Le Feber, and Mrs. P. B. Stratton.

CINCINNATI GRAIN MEN OPPOSE CO-OP AGENCIES

Determined opposition to the Federal administration's attitude in regard to farm marketing co-operative agencies under strictly Governmental domination was expressed recently in Cincinnati hay, grain and millfeed circles. The Government is taken to task in a statement issued by a prominent Cincinnati grain merchant, with the sanction of the Public Relations Committee of the Cincinnati Board of Trade. The statement follows in part:

"Government buying does not eliminate the supply. The wheat is still here. But Government buying will take the supply off the market. If nature comes to the farm board's rescue and decreases the new prospects, the market then may advance. If not, and the ever increasing acreages in this country increase the supplies, ultimately Uncle Sam will take the loss. The administration says it is a good business policy for the Government to take a loss to save agriculture. As long as the taxpayer is willing to stand for it, it is a good thing for the producer. In this move the Government has shown its first sound business step. The de-

pressing influence at this time of the year is not the wheat the farmer owns. The majority of farmers sold their wheat last summer at prices 20 cents at 25 cents a bushel better than present prices. These same grain dealers and millers paid farmers cash for it. Today the wheat 'in second hands,' depresses the market. If the Government continues to buy only that portion of wheat from farmers, still remaining on farms, at 15 cents over the market prices, it will soon face sharp market losses. But by buying from the dealers and millers it buoys the market, decreases its farmer purchase-losses and helps the market temporarily.

"Former President Coolidge has said that when the Government really starts into a business that door of opportunity is closed to the people. It has always been an American ideal that the door of opportunity should remain open. The late President Harding stood for less Government in business, more business in Government. But the same party of these men now casts these pledges to the four winds, to enable its present leaders to fulfill a campaign pledge and indulge in another experiment."

On The Scene Of Farm Relief

THE United States Government's farm relief factory, located at Van Buren and Dearborn Streets, Chicago . . . Three blocks from the board of trade . . . Ten-thirty in the morning of a March day.

The man whistling "Sunny Side Up," placing GRAIN STABILIZATION CORPORATION in building directory, alphabetically removed from FARMERS NATIONAL GRAIN CORPORATION, and GEO. S. MILNER, spelled wrong like that . . . The elevator starter jerking his thumb significantly at "a big gov'ment fella." . . . "Going up!"

The tenth floor . . . The long corridor, bristling with private offices of big relievers, with general office entrance at far end . . . The estimating of monthly rental, probably less than \$1,000 . . . The ebbing and flowing of callers . . . The walking back and forth of relievers through corridor to general office . . . The air of confusion yielding, under odds, to orderliness.

The man asking for Mr. Milnor: "Well, I know he's busy, but I've come 500 miles to see him. Might I see him at the Palmer House. Staying there, isn't he?" . . . Washington calling Mr. McKelvie. Mr. McKelvie shutting the door and talking 20 minutes. Sixteen dollars' worth of farm relief right there . . . Mr. Milnor calling a southwestern grain firm . . . Bert Lang seeming calm and genial in the general office hubub.

The trails of dusty footprints swirling off in all directions over the bare floors . . . The unsuccessful searching for at least one regulation office flapper . . . The droning of the switchboard operator: "Farmers nashnal, just a moment . . . farmers nashnal, Mr. Kellogg isn't down yet . . . farmers nashnal, sorry he's in conference . . . farmers nashnal, no he isn't down yet, is this his brother calling? Very important? . . . Farmers nashnal . . ."

President Cottington, looking like a dirt farmer if there ever was one, stepping gingerly over the smooth floor, finding dreams coming true with puzzling accompaniments . . . The horizontal wrinkling of Cottington's coat over his vast back. The jailing of his neck with a collar . . . The personifying of honesty in short, stocky, genial, rural Mr. Cottington. The imparting of a perfect front for any politics involved . . . Other individuals lending a rural flavor to the whole project by their bona fide farmers' air of forced casualness while in the city.

The man asking for somebody in conference . . . His suggesting that his business is important because he has storage space "here in the city" and that "they may need it" . . . The flopping of that remark with the switchboard girl . . . The man deciding to wait.

The executive, without a phone in his office yet,

coming out to the switchboard to call Bartlett-Frazier . . . The signing for a thick bundle of telegrams . . . The high-heeled girl from *Collier's* wanting to ask someone about another article . . . More phone calls for absent Mr. Kellogg . . . The feeling of overhead . . . The wondering about when, how, and at what price this factory will be able to send out its first shipment of farm relief.

SPRING CONFERENCE FOR ELEVATOR MANAGERS

The spring short course for elevator managers, given at Lincoln, by the University of Nebraska was a decided success. Instruction was given in grain grading, elevator accounting, insect control, varieties of seeds, smut treatment and quality in wheat. Federal Grain Supervisor Fred G. Smith, of General Field Headquarters, Chicago, spoke on Federal Grain Supervision. Southwest Division Supervisor E. L. Morris, of Kansas City, talked on the structure of the grain grades, and H. E. Nelson, the Omaha supervisor, gave instruction in grain grading. The course was well attended especially by the grain elevator men from the western part of Nebraska. About all who could be conveniently given instruction in grading were present. The United States Department of Agriculture film illustrating grain inspection and combine harvesting were shown. The elevator managers present were much interested in inspection procedure and other questions in elevator management. They were keenly alive to the importance of inspection at country points if their business is to be efficiently conducted.

Among the Nebraska elevator men attending the conference during the last week in March were: Walter Johnson, Waverly, Neb.; E. S. Crawford, Madrid; C. E. Jensen, Bruning; William Hansen, Fremont; W. G. Adams, Chappell; C. A. Bridges, Norfolk; Oscar Westberg, Stamford; R. A. Green slit, Stanton; Merle Burke, Lexington; Percy Travis, Imperial; Ernest Jensen, Cordova; G. S. Christy, Brock; A. R. Patton, Wymore; Neil McDonald and Max McCleery, Pauline; F. L. Nelson, Ashland; Frank Hines, Morse Bluff; M. L. Robb, Fairfield; W. Snedmeyer, Arapahoe; C. J. Anderson, Milford; and Philip Schilke, Angora, Neb.

"We consider the conference very successful," declared the university officials. "The men who were in attendance were very enthusiastic over the subject matter they received from the Federal supervisor and the work they received in elevator accounts from the local college professors."

CARL WILLIAMS, cotton member of the Federal Farm Board, says: "The futures market is the most reliable reflector of price values that we have under present conditions in the cotton and wheat trade."

NEWS LETTERS

ST. LOUIS

FAIRMOUNT

CORRESPONDENT

THE Missouri Pacific Elevator announces that it will increase its capacity 2,000,000 bushels. The elevator is owned by the Missouri Pacific Railroad Company and operated by the Continental Export Company. Work has already begun and there is assurance that it will be completed and ready to receive grain by August 1. It is also rumored that the Burlington railway will increase the capacity of the Burlington elevator from 1,000,000 to 2,000,000 bushels shortly. The Burlington elevator is owned by the Burlington Railroad Company and operated by the Marshall Hall Grain Corporation.

* * *

The appointment of George S. Milnor, president of the Sparks Bros. Milling Company of Alton, Ill., as vice-president and sales manager of the Grain Stabilization Corporation has met with much favor on the exchange floor. Mr. Milnor is a member of the merchants' exchange and a former director.

* * *

Dr. Jesse E. Pope, a noted economist appeared before the members of the merchants' exchange and the St. Louis Chamber of Commerce at the Statler Hotel on March 19. His talk was a challenge to the Federal Farm Board. Many members attended the meeting and were favorably impressed with his talk.

* * *

The members of the merchants' exchange bridge committee, consisting of George C. Martin, Fred B. Chamberlain, Samuel Plant, C. E. Valier, Charles Rippin, and John C. Caldwell with C. B. Rader, secretary of the merchants' exchange made a tour of the terminals as guests of the Terminal Railway Association. They were also entertained at a dinner at the Terminal Hotel.

* * *

The following transfers of membership were noted: Robert J. Flynn of the Central Elevator and Warehouse Company of this city from A. J. Poorman. Webster Tilton of Lorenzo Anderson & Co., bond and stock dealers.

* * *

Louis F. Schultz, president of the Schultz & Neimeier Commission Company, was elected, president of Post A of the Travelers Protective Association. Post A is the largest post in the United States, having 10,120 members. Mr. Schultz is a hard worker and is aspiring to get the membership up to 11,000 during his term.

* * *

William Koechig died on March 29 at 10:30 a. m., aged 71 years. Mr. Koechig was a prominent member of the merchants' exchange up to 1923 when he resigned. He was engaged in the grain business under the style of Joseph A. Buckland & Co. He was a member for about 40 years. He leaves a wife and three children.

* * *

Joshua M. Chilton, manager of the Checkerboard Elevator Company, secured a furlough of 60 days to assist George Milnor, vice-president and manager of the stabilization corporation, in starting off his new venture. Mr. Chilton is a very competent grain man.

* * *

The Veninga Newell Grain Company has announced its retirement from the grain business, although George A. Veninga will still operate personally on the floor. Wirt E. Knapp, secretary and treasurer of the Veninga Newell Grain Company, has connected himself with the Updike Grain Company, operating the wire at St. Louis. Mr. Knapp is an experienced grain man and has been pit operator for the Veninga Newell Grain Company for some time. He succeeds Mr. C. J. Gundlafinger who resigned.

* * *

The old Latin adage, "A rolling stone gathers no moss," is well exemplified by George L. Kelley,

vice-president of the J. H. Teasdale Commission Company, where he has had connections all his life.

In 1904 Mr. Kelley was office boy for J. H. Teasdale Commission Company and he worked himself up in the office until in the year of 1915 he was given a membership on the St. Louis Merchants Exchange as assistant wheat salesman. By close and faithful attendance to his work he has proved a successful salesman of wheat. His judgment is sound and he is a good judge of market conditions. With the reorganization of the J. H. Teasdale Commission Company some years ago he was elected vice-president.

Mr. Kelley is one of 10 children, being the oldest boy in the family, which consisted of four boys and six girls. He is married and has three children, two boys and one girl. He is a member of the Emanuel Episcopalian Church at Webster Groves, Mo., a suburb of St. Louis. He is also a member of the Missouri Athletic Association and the Westboro Country Club. His hobby is golf.

He has served on various committees of the merchants' exchange and is president of the St. Louis Grain Club. His father, Mr. George D. L. Kelley, was a journalist and was connected with the St. Louis Post Dispatch for many years, also publishing a grain paper there. George L. Kelley is very affable and well liked by all the wheat traders. He is fair and equitable in all his trades. Mr. Kelley is still a young man and is very active, having a bright future ahead of him.

BALTIMORE

ROBERT C. NEU

CORRESPONDENT

REFLECTING the indifference of the foreign demand for wheat this year, wheat exports from the port of Baltimore during the first three months of the calendar year amounted to 1,129,828 bushels, compared with 5,818,724 bushels exported in the same period in 1929.

Earle C. Wight, assistant general freight agent, Baltimore & Ohio Railroad, and a well-known figure on 'change here, is recovering from a nervous breakdown at his home in the Oak Court apartments.

* * *

Louis Muller, oldest member of the Baltimore Chamber of Commerce, and president of this organization in 1889, was married on March 19 to Mrs. David P. Allison of this city. After a wedding trip Mr. and Mrs. Muller will reside at the former's country home in Catonsville, Md.

* * *

At the regular monthly meeting of the board of directors of the Baltimore Chamber of Commerce, Clarence M. Stickell, flour and grain broker of Hagerstown, Md., was elected a member of the chamber.

* * *

Runge & Co., the latest accession to the list of Baltimore grain and hay firms, have taken offices at 503, Chamber of Commerce Building.

* * *

Receipts of water-borne corn in the Baltimore market so far this season amount to 73,000 bushels, compared to 69,000 bushels arrived up to the corresponding time last year.

* * *

W. M. Weems, elevator agent in this city for the Pennsylvania Railroad, and a member of the Baltimore Chamber of Commerce, has recovered from the effects of a recent fall.

* * *

The annual auction sale for choice of grain sample tables on the floor of the Baltimore Chamber of Commerce took place on Monday, April 7.

* * *

At the annual meeting of the Baltimore Flour Club, held March 25, the following officers were elected for the ensuing year: President, Stanley G. Erdman, local manager of the Pillsbury Flour Mills Company; vice-president, Walter A. Frey,

president of Frey & Co., wholesale grocers; treasurer, C. Emmerich Mears, of White & Co., flour merchants; secretary, Charles Minnigerode, feed broker.

* * *

The names of Charles W. Nicol, grain merchant; James W. Davis, farm supplies, and Fred. P. Jump, transportation agent, are posted on the official bulletin board as applicants for membership in the Baltimore Chamber of Commerce.

* * *

Fred A. Bohnet, licensed grain inspector, attached to the inspection department of the Baltimore Chamber of Commerce, has been discharged from the Maryland General Hospital where he recently underwent an operation.

* * *

The Greek steamer *Hydraios* loaded a full cargo of 250,000 bushels of No. 3 Manitoba Northern wheat at the Port Covington Elevator of the Western Maryland Railway on April 5 and 7 for Piraeus, Greece. The cargo was exported by the Canadian Wheat Pool.

* * *

After a brief illness of pneumonia, Louis Slembecker, secretary of Dennis & Co., Inc., grain commission merchants and forwarders of this market, died early on the morning of April 4 at St. Joseph's Hospital. He was 48 years of age. His death was formally announced by President Blackford to a general meeting of the members of the Baltimore Chamber of Commerce on April 5, and the following committee was appointed to attend his funeral: J. Murdoch Dennis, F. A. Meyer, J. A. Manger and Edward Netre. Mr. Slembecker virtually grew up in the grain business and knew it from every angle. Kind-hearted, obliging, and ever ready to serve his fellow men, he made many friends in local grain and shipping circles, and his passing at such an early age caused sorrow here.

* * *

Former president Blanchard Randall, Jr., has succeeded the late Charles England as National Councilor of the Baltimore exchange in the Chamber of Commerce of the United States.

* * *

The M. A. Long Company of Baltimore reports that the 280,000-bushel elevator which the firm is building for the Missouri-Pacific Railroad Company at Kansas City, Mo., will be ready for operation by the Vanderslice-Lyndo Company about June 15. Also that the storage plant and drier constructed for the co-operative Grange League Federation, Inc., of Buffalo, N. Y., has been completed.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

PROMOTERS of small Tom Thumb golf courses, which are popping up like mushrooms on vacant lots in many cities of the country, are buying up bulls, having them dyed green, and using them as material for their golf courses. About a half car is needed per course, and with several hundreds of courses in operation or building, it is claimed that this demand has taken a good many cars, and cleaned the markets up much cleaner than is usual for this season.

* * *

Stronger grain markets over the month have resulted in advancing prices of manufactured feeds and better business for feed manufacturers at increased levels. Movement of corn has been good over April and while oats are not as active as they were, they are very fair. Oats have been in good demand for seed use, but most of the seeding is now completed. Seed corn has been in good demand due to a poor quality corn crop the past season and shortage of planting grade. Elevators continue fairly busy with corn drying, although March winds helped materially in drying out stock and it is coming in much better.

* * *

The distilling season in Kentucky is about at an end. The largest producers, represented by the

THE AMERICAN ELEVATOR AND GRAIN TRADE

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Wathen plant, of the American Medicinal Spirits Company, Louisville, finished its season's run in February, after producing 160 barrels of whisky a day for more than two months. The Stitzel plant in Louisville will wind up shortly, after producing 60 barrels daily for some time. The Thompson plant at Owensboro and another at Frankfort, are reported through for the season. This is reducing production of distillers dried grains and also wet slop used for hogs and cattle in cheap feeding.

* * *

The Kentucky Public Elevator Company reported normal handlings of 10 to 12 cars in and out daily. Stocks on hand, stored for customers, are 135,000 bushels of corn; 40,000 of wheat, and 6,000 of oats. Wheat has moved from public storage to mill storage. The corn drying department is still fairly busy.

* * *

The Kentucky wheat crop prospects are for about 3,500,000 bushels, or the same as last year it is reported. Indiana and Ohio are both expected to have 30,000,000 to 35,000,000 bushels. Tennessee will probably have 10,000,000 to 12,000,000 bushels. Kentucky hasn't grown a large crop since just after the war, as farmers in the state have gone to dairying and cut down wheat raising. The biggest crop in Kentucky history was just before the war and was 11,500,000 bushels. War crops were around 7,000,000 to 9,000,000.

* * *

Fire at Campton, Ky., April 5, destroyed most of the business district of the city, including the J. H. Stamper feed store, with loss of \$5,000, and general merchandise stores of J. E. Childers, Coons & Steel, and a number of other concerns. The city has no fire fighting equipment. Winchester, Ky., 40 miles away sent a pumper, which couldn't get over the only road into the mountain town. Total loss to the town was over \$40,000, with no insurance reported, due to high premium rate on unprotected cities.

* * *

Henry Freuchtenicht, local hay and grain dealer and private elevator operator, reported fair general demand for feed, things looking much better than they did.

* * *

The Louisville trade expressed deep regret at the recent death of Edward C. Farmer, head of Oscar Farmer & Sons, one of the oldest and largest of the grain houses. H. K. Blanford has been looking after the business since the death of Mr. Farmer. F. M. Flowers, active in the business for a number of years, is able to again be down a part of each day, after an illness of several months.

BUFFALO
ELMER M. HILL CORRESPONDENT

GRAN and elevator interests at Buffalo which have allied themselves against the Great Lakes-St. Lawrence tidewater movement, fearing that the canalization of the St. Lawrence waterway so that ocean going ships may sail direct from the Great Lakes to any part of the world would react adversely on Buffalo as a grain port, are making a big mistake, says Charles P. Craig, vice-president at large and executive director of the Great Lakes-St. Lawrence Tidewater Association.

"Buffalo as a seaport has much more to gain than Buffalo as a grain transfer port," explained Mr. Craig, whose views on the subject have met with varied reactions from leaders in the grain and elevator trade at Buffalo where millions of dollars have been invested in terminal elevators. "Buffalo has magnified the loss that might come from a part of the grain which now transfers from lake boats if the canalization of the St. Lawrence becomes a reality. The benefits which would be derived from ocean going steamers touching at Great Lakes ports would far outweigh any possible losses as to make the latter appear negligible by comparison. With the opening of the enlarged Welland Ship Canal this season, the extension of lake commerce to Prescott and Ogdensburg will not seriously affect Buffalo as a grain port. The elevators at Buffalo will continue to be used for storage and transfer."

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With only 10 vessels of the winter grain fleet unloading at terminal elevators on April 7, the weekly report of the Buffalo Corn Exchange of that date showed the number of bushels of storage grain afloat in the harbor reached a new low level at this season of the year. Grain afloat April 7 totalled only 4,131,962 bushels. Quickening of the movement of grain from the elevators also was indicated by the total number of bushels of grain in storage compared with the previous week. On April 7, the

number of bushels held in elevators was 19,137,773 as compared with 20,128,801 for the previous week and the month's decline was very pronounced.

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Howard F. Roberts of 19-23 Evans Street, Batavia, N. Y., one of the largest grain and feed dealers in that section of the state, has filed a voluntary petition of bankruptcy in the United States District Court in Buffalo, scheduling liabilities of \$84,654 of which unsecured claims are \$53,793. Assets are claimed to be \$65,332 of which real estate is \$50,000; stock, \$6,441; accounts receivable, \$4,185 and trucks, \$3,559. The Bank of Batavia has a mortgage on the elevator property of \$30,000. Among the larger creditors are the Eastern Grain Company, of Buffalo, Cargill Grain Company, and the Percy Kent Bag Company.

* * *

The New York state barge canal was scheduled to open for navigation between Buffalo and Rochester April 12. The section of the canal easterly from Rochester opened April 7. The Oswego, Cayuga, and Seneca canals also opened April 7. An optimistic outlook for heavy grain shipments over the state waterway eastbound from Buffalo is current in grain forwarding circles. Officials of Murphy & Huffman, canal brokers, explained there were 50 barges in New York with cargoes of flax bound for Amsterdam, Buffalo, and Duluth. At Buffalo a large number of barges were loaded with grain for shipment to the Eastern seaboard for export.

* * *

The annual meeting of stockholders of the Consolidated Feed & Grain Company, was held March 28 in the company's offices in the chamber of commerce. Eliot W. Mitchell was re-elected president



ELIOT W. MITCHELL

of the company. All other officers and directors were re-elected.

* * *

The Marine Elevator Company, at its annual meeting early this month, re-elected all directors and the officers. E. J. Nolan is secretary of the company which maintains its offices at 634 Chamber of Commerce building.

* * *

The Queen City Milling Company, which was organized a short time ago with a capitalization of \$300,000, announces plans for the construction of a new feed mill west of Bailey avenue between William and Clinton streets in Buffalo to cost upwards of \$150,000. The mill will have a maximum capacity of 45 carloads of feed daily. It is expected the mill will be completed and ready for production before mid-summer. Bert Hull, president of the new company, has had 30 years' experience in the grain and feed trade in Buffalo having been formerly associated with the Armour Grain Company, the Buffalo Cereal Company, the Maritime Milling Company, and the Hecker H-O Company. The company will maintain its own sales staff covering New York, Pennsylvania, and other parts of New England, selling direct to retailers. Michael F. Crotty is vice-president of the company; Robert R. Robertson, treasurer; and Joseph Dray, secretary. The company has been maintaining offices in the Ellicott Square Building.

* * *

Great Lakes' vessel owners look for an active season in the grain trade as soon as navigation gets under way early next month. Few charters, however, have been made to carry grain. There is a big volume of grain in storage at both the American and Canadian head of the lakes but no agreement

has been reached regarding rates. Vessel owners are not anxious to tie up their tonnage at rates now being offered by grain shippers.

* * *

Godfrey Morgan, manager of the Kellogg elevator, has been elected president of the Hook & Axe Club of the chamber of commerce, succeeding Harry Roblin, the retiring president. Mr. Morgan is secretary and general manager of the Kellogg Grain & Elevator Corporation, and one of the leaders in the grain and elevator trade in Buffalo. He is a past president of the Buffalo Transportation Club and formerly was secretary of the organization.

* * *

Buffalo's waterfront grain elevators now have an assessed valuation of more than \$15,000,000, according to a survey just completed by the chamber of commerce. The elevators now have a capacity of 46,703,000 bushels—more than three times that of Montreal. Of Buffalo's elevator capacity, about 40,000,000 bushels are available for public storage, the other 6,000,000 bushels being that of flour and feed mills which do not offer public service facilities.

* * *

Leaders in the Buffalo grain, elevator and allied trades are well represented in the personnel of the 1930 standing committees of the chamber of commerce announced by Thomas H. Hanrahan, president of the organization. Those on various committees include John J. Rammacher of the Eastern Grain Corporation, canal committee; George P. Urban, president of the Urban Milling Company, aeronautics committee; Howard Kellogg of the Kellogg Grain & Elevator Corporation, foreign trade committee; Edwin T. Douglas, grain forwarder, river and harbors committee; Nisbet Grammer of the Eastern Grain Corporation, and Godfrey Morgan of the Kellogg elevator, special St. Lawrence canal committee to study the project for the canalization of the St. Lawrence with reference to its bearing on Buffalo's grain and elevator trade.



DURING the past month, Fred O. Paddock, president of the Paddock, Hodge Company, announced his retirement from business and dissolution of the above firm. Mr. Paddock was the oldest living member of the exchange before his resignation. He is 77 years old and while his many friends regret his retirement they also feel that he has earned a rest after so many years of activity.

* * *

William E. Savage, president of the Imperial Grain & Milling Company, and wife left last month for several weeks sojourn with their daughter at Palm Beach, Fla.

* * *

The Annual Farm-City Dinner under the auspices of the Toledo Chamber of Commerce, held early in March, was a great success. More than 800 "city fellers" and their country cousins broke bread together and then listened to Grove Patterson, editor of the Toledo *Blade*, propound some of his homely philosophy and later heard Mr. Butterworth, president of the National Chamber of Commerce. Harold Anderson, president of the National Milling Company, was highly complimented for his work as master of ceremonies and ability as a toastmaster.

* * *

Mrs. Raymond P. Lipe, who has been an invalid for several years, passed away during March, leaving her husband and three married daughters. She was a prominent member of Toledo society for a great many years, taking part in all charitable undertakings and during the World War was prominent in Red Cross work. Her husband was formerly interested in the old firm of C. A. King & Co., which failed last fall.

* * *

The regular monthly meeting of the Northwest Ohio Farmers Grain Dealers Association, was held in Delta, Ohio, April 7, with Fred Abbott, local manager, as host for the evening. A fine program was arranged with several speakers, among them being Charles Latchaw, secretary of the state organization, who talked on the farm board program. Several Toledo firms were represented.

* * *

Several bowling teams have been organized on the exchange and every Monday night the maples come in for a smashing attack by the "Chicken Feeds," "Margin Calls," "Timothy Seeds," "Wild Oats," "Screenings," and "Hay Seeds," each team having three men.

* * *

Wilfred D. Keilholtz, traffic manager of Southworth & Co., surprised his many friends by being married during the past month. The young lady

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was Miss Marie Evers, Toledo. They are making their home at 157 Dartmouth Drive and will leave for their honeymoon sometime during the summer months.

* * *

The National Milling Company has let contracts for the building of additional storage space at their plant which will bring their total capacity up to 5,000,000 bushels. The work will cost approximately \$600,000 and provide labor for many Toledo men who are out of work. The mill turns out 6,000 barrels of flour daily which goes to the various plants of the National Biscuit Company for making their products. Joe Lackey, formerly of Indianapolis, is the cash grain buyer for this concern, the largest Soft wheat mill in the country.

* * *

Fred Wilkinson, formerly with the Paddock-Hodge Company, has accepted a position as bookkeeper for the Kasco Mills, Inc., of Toledo. Fred is widely known throughout the trade in this section of the country and has had a wide experience in the business.

* * *

George Beeley, associated with C. A. King & Co. for about 30 years, is now traveling for Phil Sayles, who represents the Sheffield Elevator Company as well as managing his own company, the Smith-Sayles Grain Company. George is well known to the trade in Ohio and nearby states.

* * *

Don Rinehart, bookkeeper for Kasco Mills during the past six years, left on the tenth of this month to travel for a well-known cheese products company, of Chicago, selling their Kraco products in the state of Ohio. Charles Kieser, formerly with the Kasco Mills in Toledo, is now sales manager of the Kraco division of the cheese company.

* * *

Aungst Bros., with plants at Archbold and Fayette, Ohio, recently made an assignment of their business to protect remaining assets which are believed to be enough to nearly take care of liabilities. They were formerly owners of several other stations and had handled a large volume of business during the past 10 years. No cause for the difficulty was given except that the market had worked against them in several transactions and they had been involved by the failure of a Toledo grain concern.

* * *

Edgar Thierwechter, president of the Ohio, Grain Mill and Feed Dealers Association is beginning to call attention to the annual convention which will be held here in June. The two days will be crowded with good things for those who attend. Toledo has always had a reputation for hospitality and entertainment of a high order. All dealers whether members or not are cordially invited. Secretary Cummings will send out further announcements later.

* * *

The new Toledo plant of the Toledo Grain & Milling Company, is completed and is turning out a line of feeds with latest modern machinery and methods of manufacture. Jesse D. Hurlbut is secretary-treasurer and general manager, Paul Barnes, grain buyer and Pete Head, sales representative.

* * *

Gerald Nettleton, son of E. A. Nettleton, secretary-treasurer, of the Imperial Grain & Milling Company, recently completed a course in flying in Los Angeles, Calif., and has returned to Toledo with his license as a transport pilot.

* * *

Kenton D. Keilholtz, of Southworth & Co., president of the Toledo Produce Exchange, attended the meeting of grain exchange presidents held in Chicago last month. Harry De Vore, of H. W. De Vore & Co., also attended.

MILWAUKEE
C. O. SKINROOD - CORRESPONDENT

MARCH corn receipts at Milwaukee totaled 1,046,000 bushels compared with 990,000 bushels for March of last year, a gain of 50,000 bushels. Other grain receipts for last month were: 786,000 bushels of barley, 172,000 bushels of oats, 63,000 bushels of wheat, and 4,200 bushels of rye, the latter a remarkably low figure.

Wisconsin is anxiously looking to the crop situation as it is likely to develop in the next two or three months. W. P. Stewart, official weather forecaster, says that the soil of this state is greatly deficient in underlying moisture. In fact, the sub-soil is believed to be exceptionally dry and crops are certain to suffer unless the decisive lack of moisture is made up some time later. Mr. Stewart points out that January was a very cold month in Wisconsin.

sin with a large number of sub-zero days. However, the remainder of the winter was unusually mild both before January and since, so that temperatures were relatively high. It was also true that there were several big snow storms but on the whole there was not enough to bring the moisture supply up to normal.

* * *

Prospects are good for an active season on the Great Lakes from the standpoint of grain trade and also of shipping in general, according to C. U. Smith, the harbor terminal director. Mr. Smith has just compiled figures showing that traffic here last season passed the 8,000,000-ton mark. The actual figures were 8,564,000 tons for the season of 1929 as compared with traffic of 7,984,000 tons for the previous year. The valuation of the lake traffic however was down for the past year with Mr. Smith's figures indicating total values for the past year of more than \$486,000,000 as against an aggregate of more than \$514,000,000 for the previous season.

The total number of ships making the harbor passed the 12,000 mark in the past year with 12,808 in all, as compared with 12,682 ships reported in the previous year. There were 64 foreign vessels which entered this port in the past year as against 52 in the preceding year.

* * *

Stocks of wheat held at Wisconsin mills and elevators are about 10 per cent smaller than a year ago. With only about 270,000 bushels of wheat stored at 450 interior mills in the state, the stock is exceptionally low as these mills have capacity for about 5,000,000 bushels of grain.

* * *

A large amount of grain is held at Milwaukee in the various elevators awaiting the opening of navigation. The holdings of oats are exceptionally large, although the receipts of oats have been light for several months. The storage of oats is given in excess of 2,515,000 bushels. The corn supply comes next in size with an aggregate of 1,582,000 bushels. The wheat holdings are rather small with 627,000 bushels reported. Barley storage is very light with only about 160,000 bushels, while rye holdings are almost nominal at 37,000 bushels. With more than 4,000,000 bushels of corn and oats, these two grains make up the great bulk of the 4,852,000 bushels of grain held in the elevators. In addition there are more than 800,000 bushels of grain afloat for the opening of navigation. This is made up of 177,000 bushels of corn and 642,000 bushels of oats.

A very determined move is being made in Milwaukee to get a wireless station here because of the rapid growth in the lake traffic of the city. Delegations will be sent down to Washington to get the navy department to provide a wireless station here. The association of commerce and the chamber of commerce will also support the proposition as being one of the urgent needs to take care of navigation.

* * *

The rate of interest on advances at the Milwaukee Chamber of Commerce is back on a steady level of 6 per cent. This rate has been again fixed as the official one for the month of April.

* * *

Peter Schmitz, a veteran grain dealer and one of the oldest members of the Milwaukee Chamber of Commerce is dead at the age of 72. He had spent all of his life in the city of Milwaukee. For 40 years Mr. Schmitz had been a member of the Milwaukee chamber. With his two sons he conducted a wholesale and retail grain business in Milwaukee at 809 Winnebago Street. He is survived by his two sons and by his daughter, Mrs. John Jacobs.

* * *

There is going to be a larger interest in wheat in Wisconsin this year. Spring wheat area will go up about 15 per cent and the Winter wheat acreage will increase around 8 per cent over last year's production. Corn is only a little more popular with expected gains in acreage of 2 per cent. Barley will show one of the larger gains with an increase of 6 per cent.

The hay acreage it is expected will go down about 2 per cent because of the fact that the hay fields did not go through the winter as well as they did a year ago.

* * *

A quota of \$395,000 for improvement of Milwaukee's harbor has been fixed by Secretary of War Hurley at Washington. Under the plans which have been approved the sum of \$380,000 will be expended on the outer breakwater and the remainder of the sum allowed will go for maintenance.

The funds were provided under the first deficiency bill signed by President Hoover which appropriated approximately \$10,913,000 for this purpose at the various ports and also allowed \$1,086,000 for a contingency fund.

Other waterway projects in this state will receive relatively small sums. The Fox River will get about \$60,000 and the Mississippi River from Prairie du Chien to Minneapolis will get \$425,000. Muskegon harbor has some extensive improvements in sight with an allowance of more than \$815,000.

The opening of the Welland canal with its mas-

sive locks 840 feet long will take place about July 1. William George Bruce, of the Great Lakes-St. Lawrence Tidewater Association, said. At that time there will be a spotlight thrown on the whole St. Lawrence waterway project to push the thing along. Mr. Bruce is so sure that the entire waterway project is going through in a hurry that, as head of the Milwaukee harbor commission, he will take steps to rush the building of the Milwaukee port to be ready for the coming of the great international traffic.

* * *

Wisconsin is not looked upon as a great corn state but nevertheless figures have just been given out by the college of agriculture of the University of Wisconsin that show the Badger state was actually the leader of the United States in shelled corn production per acre, both in 1928 and in 1929. The department of agronomy found that Wisconsin has actually averaged better than a 41 bushel yield for the two years under scrutiny while Iowa for the same period ranked second and had an average yield of 40.7 bushels to the acre.

* * *

The Milwaukee Chamber of Commerce will again adopt daylight saving hours for the summer. The rest of the city is fiddling around and probably will stick to standard time, but the grain men will move along with Chicago in hours as they have done for several years.

* * *

Bruno Fink, aged 70, formerly a leading Milwaukee maltster, is dead. He was formerly a partner in the Milwaukee Malting Company. Besides his business he was noted for his great interest in fine arts. His wife is a sister of the noted painter, Carl von Marr.

INDIANAPOLIS
H. M. RUDEAUX CORRESPONDENT

RECEIPTS of grain at Indianapolis during the month of March were slightly below normal. Early this month the movement of grain to this market had been fair with the exception of wheat. Corn and oat receipts are readily disposed of and the inquiry from eastern houses has improved. There is a good demand from southern millers for wheat, most of which is being shipped from storage. Consignments are light and advices are few at present due probably to the fact that farm work has opened up and little grain is moving to the elevators.

Reports from various sections of the state show that the wheat crop is anything but promising. Some reports tell of spewing and winter killing, but the most serious of all is the lack of moisture. If reports are true the crop will be very short and with the acreage 25 per cent short the condition might be serious. In many of the southern counties the fields have been plowed under and will be planted in corn or soy beans.

* * *

The Farmers Co-operative Elevator at Southport was completely destroyed by fire of unknown origin on March 15. The loss, which was covered by insurance, was estimated at \$50,000 by J. J. Riser, manager. Three thousand bushels of oats, wheat, and corn in the elevator and warehouse were destroyed. Quick work of the firemen kept the midnight blaze from spreading to the company's coal bins, offices, and adjacent structures. According to officials of the company, the elevator will be rebuilt.

* * *

A meeting of the directors of the Indiana Grain Dealers Association was held in the library of the Indianapolis Board of Trade where it was decided that the mid-summer meeting of the association will be held in Indianapolis on June 18. After the meeting of the directors a group meeting of the grain dealers in the Indianapolis territory was held and reluctance about signing contracts at present with the wheat pool was expressed. There were about 50 grain men in attendance.

* * *

Horace E. Kinney, one of the oldest members in active service of the Indianapolis Board of Trade is dangerously ill. Several weeks ago Mr. Kinney was taken sick and physicians pronounced it heart disease. He has been confined to his room and forbidden to see any visitors, although, it is reported that his condition is improving.

L. E. Banta, traffic manager of the Indianapolis Board of Trade, has been absent from his office for several weeks, troubled with gallstones. As soon as his condition will permit, he will be taken to the hospital for an operation.

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Papers were filed with the secretary of state in Indianapolis, by the M. & R. Grain Corporation, Indianapolis: Capital stock, 150 shares having a par

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value of \$100 a share. The company will manufacture and sell all kinds of feed and foods for livestock and poultry. The incorporators are Halford E. Dawson, Elijah Dawson, and Edith P. Dawson.

* * *

A new grain elevator and feed mill will be erected by the Milroy Milling Company on the site of the large brick flour mill in Milroy, which burned last August.

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L. A. Yochem, who was formerly with the Midwest Elevator & Grain Company, has bought an interest in the C. William Maibucher Grain Company. Mr. Yochem has been associated with the grain business for the past 10 years and is well qualified to fill his new position. The Maibucher company has been appointed selling agent for the Indiana Farmers Co-operative Elevator Company. The new connection will in no way affect the company or its dealings with country shippers, as they will sell only, and act as sole agents for the Indiana Farmers Co-operative Elevator Company.

John J. Broden, who for the last 10 years has been connected with the Fletcher American Company, has been appointed to the office force of the R. H. Gibson Company, New York brokerage firm.

* * *

A total of \$550,000 from the revolving fund of the Federal Farm Board set up in the Agricultural Marketing Act a year ago has been voted Indiana farmers for use in the co-operative marketing plan. The plan in this state is fostered officially by the Central States Grain Association, organized by the Indiana Farm Bureau, Inc., the former being a member of the National Grain Corporation with headquarters at Chicago.

Of the total sum, \$350,000 will be used by the central states organization for "effective merchandising" of farm grains. This amount, authorized in a letter from the national corporation at Chicago, was received March 27 by B. B. Benner, secretary-treasurer of the Central States organization. The amount will permit the purchase of grain from Indiana farmers to be stored for future marketing. On March 26, the central state organization received authority for a loan of \$200,000 to spend for rental or purchase of elevators or other suitable places for storage of the grain.

A letter to Mr. Benner from Ward Buckles, controller of the national grain corporation, sets out the policy of the corporation as limiting "the loans not to exceed 60 per cent of the value of the property if the land is owned by the borrower, or if on leased premises, not to exceed 50 per cent of the value, and annual amortized payments must be provided."

KANSAS CITY
KENNETH FORCE CORRESPONDENT

KANSAS became a model after which it is expected will be modeled a national pattern for farmer co-operation March 19, when all the state's major farm organizations united behind the farm board's wheat marketing plan the first time in history all organizations have agreed upon a single course in following out a marketing project.

The disputed Kansas-Colorado Regional Wheat Marketing Association was accepted as a warehouse holding corporation. It was agreed to support the decision of a central authority on organization work.

A committee of 10 representing various marketing groups was appointed after the conference to develop the machinery for converting the regional association into a warehouse corporation. Harry E. Witham, general manager of the Farmers' Union Jobbing Association of Kansas City, was chosen temporary chairman, and Ben F. Hegler of Wichita, temporary secretary.

* * *

Julius Underwood, 65 years old, and a business leader of Lawrence, Kan., for 43 years, died at his home March 27 with heart disease. He was president of the Underwood & Son Wholesale Produce & Food Company, one of Lawrence's oldest business firms. He came to Lawrence with his parents in 1868, was educated in the Lawrence high school, and attended the University of Kansas.

* * *

Fred C. Vincent, vice-president of the Simonds-Shields-Lonsdale Grain Company, who returned March 16 from a spring tour abroad, said that European countries were working out a long program of becoming self-sufficient. They are all raising wheat and other grain crops to a greater extent every year, he said. It will take some time for the program to become effective, however.

Charges by the Federal Farm Board that the private grain trade "has been planning a May day

coup, in the delivery of wheat on May contracts was characterized, March 22, as misrepresentation of facts by R. A. Jeanneret, president of the Kansas City Board of Trade. He said nearly every move "so far advanced by the farm board has been in direct violation of the law of supply and demand and now since this is emphasized, every political effort is being made to place the burden of these unwise acts upon the grain trade."

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C. C. Fields of Winnipeg, vice-president of the Norris Grain Company, visited the Kansas City Board of Trade April 9. He had been away from home 10 days and said western Canada was going into the crop planting season with the driest soil condition in 20 years.

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Glenn F. Hilts, assistant treasurer and wheat buyer on the board of trade for the Larabee Flour Mills Company, was called to Anthony, Kan., April 9, by the death of his mother, Mrs. R. D. Hilts. The funeral was held April 11 at Anthony.

* * *

Average protein content of 1,448 cars of wheat inspected by the Kansas state grain inspection department in Kansas City during February was 12.21 per cent and the average of 1,190 cars inspected during the same month by the Missouri state grain inspection department was 11.84 per cent. Protein content of all wheat inspected in Kansas City during February averaged 12.04 per cent.

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J. S. Hart, vice-president of the Logan Brothers-Hart Grain Company, returned March 12 from a month's vacation with his family at the principal resorts in Florida.

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Two silver trophies will be awarded by the Kansas City Board of Trade to winners of the senior and junior divisions students' crop judging contest at the Kansas State Agricultural college, which is expected to be held the latter part of next month. The contest is held by the Kiod and Kernel club of the college every year and this will be the twelfth event of its kind. About 100 students have entered the contest. Judging will be in wheat, corn, oats, rye and legumes and identification of plant diseases, noxious weeds and crop varieties, according to J. J. Curtis, professor of agronomy at the college.

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The feed store located in the Potman Building, Seventeenth Street and Swift Avenue, North Kansas City, was destroyed by fire of undetermined origin March 11. The loss, it is understood, was covered by insurance.

* * *

William White of Lincoln, Neb., was a Kansas City Board of Trade visitor March 27. He owns about 2,500 acres of land in Canada, most of which is planted to wheat. He said Canadian wheat growers, as far as he had heard, intended to plant about the same acreage as last year. Because of the cheaper land and generally higher prices, Mr. White finds it more profitable to raise wheat in Canada than in the United States.

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Kansas farmers are preparing for a normal planting of corn, a material increase in oats and soybeans and a slight increase in potatoes in the commercial district of the Kaw Valley, the state board of agriculture announced March 26 after a survey made of the section.

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J. J. Knight, general manager of the Equity Grain Company of Kansas City, stressed the need of co-operative marketing at the fourteenth annual convention of the Farmers' Co-operative Grain Dealers Association at Enid, Okla., March 28. He said that the grain situation in America is not as bad as many have led the public to believe. He expressed confidence in the Federal marketing board, but said that much farm relief must come from the farmer himself through reduced acreage.

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The following mill and grain executives were members of the Kansas City Chamber of Commerce trade tour which spent a week visiting principal cities in Texas and Louisiana, March 30 to April 7: Oscar T. Cook, Southwestern Milling Company, Inc.; H. C. Gamage, vice-president of the Moore Seaver Grain Company; F. C. Hoose, vice-president of the Norris Grain Company; George W. Hoyland, president of the Hoyland Flour Mills Company; G. W. Selders, president of the Southard Feed & Milling Company; Walter Scott, secretary, transportation commissioner, Kansas City Board of Trade; Gus Schmierer, president of the Quisenberry Feed Manufacturing Company; and Frank Theis, vice-president of the Simonds-Shields-Lonsdale Grain Company and vice-president of the Kansas City Board of Trade.

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The Missouri wheat crop, at the beginning of April, was 75 per cent normal as compared to 86 per cent a year ago, according to E. A. Logan of the United States Department of Agriculture, and Jewell Mayes of the Missouri state board of agriculture.

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ture. Wheat prospects receded five points in March, a loss caused by unfavorably cold and dry weather accompanied by hard freezes toward the latter part. The 1930 production now indicated is 18,200,000 bushels compared to 17,200,000 bushels in 1929, the report pointed out.

* * *

The driest spring since 1910 is causing a good deal of concern to farmers of Kansas. On April 1 the state had a prospective wheat crop of 144,000,000 bushels, but drought has decreased expectations. The state sowed 12,687,000 acres to wheat last fall, the largest area in its history. The condition April 1 was 78 per cent of normal, two points above the same date a year ago.

* * *

A group of Kansas City business and professional men, former classmates at the University of Kansas of Edgar C. Markham, assistant to Alexander Legge, chairman of the Federal Farm Board, entertained Mr. Markham at a luncheon March 29 at the Kansas City Athletic Club. Mr. Markham was on his way to Washington, Kan., where his parents were to celebrate the fiftieth anniversary of their wedding.

* * *

J. F. Jarrell, agricultural development manager of the Santa Fe, told wheat belt representatives at Wichita, March 25, that his road would have 20,000 box cars in the main wheat belt this season, the largest number of carriers the road ever has assembled.

PEORIA
IVAN L. REVEAL CORRESPONDENT

THE activities of the Federal Farm Board were roundly scored by William C. White, vice-president of the Commercial Merchants National Bank, Peoria, in an address at a dinner given by the Peoria Board of Trade recently. He said that the business of the grain dealers of the nation is at this time being subjected to the same "experimental" revisions that were applied to banking and other branches of commerce as the result of new processes demanded by an advancing civilization.

"You men in the grain business are confronted with something to think about," Mr. White declared. "Bankers of the country passed through the same worries. It is a matter of changing civilization, bringing on different methods in manufacturing, transportation and distribution. General business conditions are changing rapidly to conform with the new order of things."

"It appears to me that the Federal Farm Board project is an attempt to fulfill political obligations, but ultimately this question will be solved along the principles of economic laws of supply and demand. If the experiment does not work, we will all go down together."

President B. E. Wrigley of the Peoria Board of Trade presided at the meeting which was attended by railroad men, bankers, and grain dealers. In his introductory remarks he reviewed the history of the board of trade.

"The Peoria Board of Trade is a meeting place for buyers and sellers," he said. "The exchange has nothing whatever to do with establishing prices, and since 1869 has not missed being open a single business day. In the establishment of the exchange, it developed that Peoria was the logical place for the starting of a market, and this attracted transportation. The board has always been a public spirited institution, and its history reveals it has supported every good thing that meant further development of Peoria and the Peoria market. We are proud of the board because we feel we have given the farmer the very best in marketing his grain."

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The American Commercial Alcohol Corporation at Pekin is still closed during the completion of its new dry feed mill which will take the place of the one which burned recently.

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The contract has been let for the new 500,000-bushel addition to the East Peoria Elevator Company's elevator in East Peoria, and it is expected that the actual work will be started on or before May 1. With the completion of the new wing, this elevator will have a capacity of 1,000,000 bushels of grain and will be the biggest public elevator in the Peoria-Pekin industrial district, being equal to the plant of the American Milling Company at Bartonville.

* * *

After a dull 15 days in March, trade in the Peoria Board of Trade livened up shortly after the first of April as two of the bigger local industries entered the market for nearly their normal requirements. By the tenth of the month the demand had

again risen to from 60 to 75 cars a day for local requirements and the shipping trade was beginning to show more life. Late in March the Corn Products Refining Company found some of its corn deteriorating in the bins and began using the surplus stocks. This made a difference of from 10 to 20 cars a day in the local demand which kept traders scurrying for a place to put the offerings. During the same period the commercial solvent buyers were also nearly out of the market. This meant several cars daily added to the surplus. Both concerns are now back in the market for their normal requirements.

* * *

The recent warm weather, which sent the temperature up to an official 92 degrees, started the golf bug a-buzzing around the heads of the exchange members and a number of them have climbed the fences adjacent to the local golf courses looking for stray balls. All are eagerly waiting the day of turning up the clock so they can have the extra hour of daylight on the greens. Daylight saving was defeated for the city of Peoria despite the fact that members of the Peoria Board of Trade led a campaign to have it adopted by the city, but turning up the clocks in Chicago and other market centers will help the local members get their desks in order early in the day so they can get out of doors while the sun is still high in the sky.

* * *

With the completion of oat sowing, farmers in central Illinois are sending more corn to market and some of the country elevator operators who were holding good supplies of corn took the opportunity of the bulge in prices to ship stocks which they had held for several weeks.

NEW YORK
C. K. TRAFTON - CORRESPONDENT

THE ever-widening interest in the securities market on the produce exchange continues to attract new members representing firms dealing in stocks and bonds of all kinds. Four such representatives were elected to membership in the exchange early this month: Sinclair Adam, of Lord & Widli; Leslie Herman, of Brownham, Herman & Co.; William P. Stewart, of Stewart Bros.; and Henry A. Block, of Hoffman & Blum.

* * *

Richard S. Law, of the United Grain Growers, Ltd., Winnipeg, is an applicant for membership in the produce exchange.

* * *

Joseph Seifer, for the past 16 years an active figure in the grain and feed trades on the exchange as a representative of B. F. Schwartz & Co., Inc., and its predecessor companies, has severed that connection. At this writing, Mr. Seifer was not ready to make a statement regarding his future plans.

* * *

Alfred G. Boesel, a member of the stock and grain commission firm of Jackson Bros., Boesel & Co., on the Chicago Board of Trade, was elected to membership in the New York Produce Exchange at the early April meeting of the board of managers.

* * *

Trading in tickets of membership in the New York Produce Exchange continued very quiet during the latter part of March with the market quoted on a nominal basis of \$8,500 for regular memberships and \$4,500 for associate tickets, at which prices the last previous sales had been made.

* * *

E. F. Rosenbaum, of the Rosenbaum Grain Corporation of the Chicago Board of Trade, was admitted to membership in the produce exchange early this month.

* * *

According to a bulletin displayed on the trading floor the following nominating committee has been designated to select candidates to be voted on at the annual election of officers and members of the board of managers, which will be held on June 2: J. Barstow Smull, chairman; George I. Helliesen, James Ward Warner, Henry G. Graff, William H. Freund, Harry B. Watson, Carl F. Andrus, Frederick O. Seaver, A. L. Snow.

* * *

Simon Kern, of the Bunge North American Grain Corporation, has applied for admission to membership in the exchange.

* * *

Going into the last month of their active bowling season, the members of the produce exchange bowling league have been faithful in their attendance at the weekly sessions on the alleys and a number of excellent scores have been added to the records. Prizes for highest actual scores were won by Frank Wagner, with 218; A. F. Therrien and E. S. Gallo-

way, 215; and B. V. McKinney, 210. Prize winners for best scores with handicaps were: Wagner, 256; Galloway, 247; and McKinney, 240. Other good scores were: Connor, 214-210-202; McKinney, 213; Moore, 211; Galloway, 209; F. Wagner, 208; Therrien, 206; Gerard, 203; and Zwing, 202.

* * *

An interesting topic of discussion among members of local grain and flour trades recently was the astounding fact that New York, the second largest city in the world, is now without a flour mill. Strange as it may seem, it is nevertheless true that the huge population of this great metropolis; in fact, the inhabitants of the whole metropolitan district, possibly some 10,000,000 persons, must secure their supply of flour from mills located far beyond its limits. Following the absorption of the old Hecker-Jones-Jewell Milling Company by the Gold Dust Corporation, it was decided to cease milling operations on April 12 at the huge plant, once known as the largest single producing unit in the world, which was for so many years a landmark at Corlears Hook on the East River. Being so advantageously located on the waterfront, the site is a highly valuable piece of property and, according to latest reports, the question of disposing of it has not yet been considered. The company will continue to maintain general offices in this city.

Oscar Robinson of the Travis Cotton Seed Oil Products Co., was among the applicants elected to membership in the produce exchange at the early April meeting of the Board of Managers.

* * *

The volume of trading in the Securities Market on the exchange during March showed some falling-off as compared with the total for February, but at the same time there was a substantial increase over the turnover for the same month last year. In addition, it is pointed out as decidedly gratifying that the total sales for the first three months of 1930 totaled 5,290,626 shares, an increase of approximately 300 per cent over sales for the corresponding period of 1929. The members are also pleased by the indications of a broadening market, it being noted that on April 9, 76 different issues were traded in, this being the largest number for any one day since last September.

* * *

John Mooney of The Grain Growers Export Company, Ltd., of Winnipeg, is an applicant for membership in the exchange.

* * *

That interest in the securities market on the exchange continues to grow steadily is again demonstrated by the fact that the applications for admission to membership which are now posted on the bulletin boards and will be acted upon in the near future by the Board of Managers include those of several individuals and representatives of houses engaged in the handling of stocks, bonds, etc., as follows: Bryant M. Gilman of Alex. W. Herman & Co.; Ferdinand L. Salomon of J. F. Salomon & Co.; Wm. M. Wolff of Abrahams, Hoffer & Co.; Arthur Freed; Bernard J. Ferris; Isadore Weill; Anatole A. Tournch.

* * *

Simon Mayer, vice-president of the Continental Grain Company, with headquarters on the Chicago Board of Trade, spent a few days with members of the grain trade on the exchange last month while on his way home after a tour of about two months in Europe, mostly in France and Germany.

* * *

Members of the Exchange, and especially the veterans in the grain trade, were deeply grieved to hear that T. Harry Story had died on March 21, after an illness of several months. Mr. Story, who was 65, was connected with the grain trade from boyhood and for the past 43 years was associated with the firm of W. H. Story & Co., which was organized by his father in 1884 with C. B. Hancock and Jacob H. Halsted as partners, the latter being the only member of the firm now surviving.

GRAIN NEWS FROM BOSTON

By L. C. BREED

J. H. Caldwell, broker, has been elected to associate membership in the Boston Grain & Flour Exchange.

* * *

Frank J. Ludwig, of the C. M. Cox Company, was named chairman of the transportation committee of the exchange for the ensuing year at the directors' meeting which completed the appointment of committees. The grain committee is headed by Henry E. Taylor, chairman, and other members are M. D. Benzaquin and Alex MacDonald.

* * *

Harry N. Vaughn of the C. M. Cox Company sailed from New York, March 20, with his wife for a six-week trip to Europe.

* * *

The Wilder Grain Company of Lowell, Mass., has been incorporated to buy and sell grain, feed, flour and hay. The new company will take over the business of Wesley M. Wilder, under the same name

with a capital stock of \$35,000, 350 shares at \$100 each. Wesley M. Wilder is president and Bertha M. Wilder, treasurer.

* * *

A. T. Safford, member of the firm of Safford & Smith, mill agents with offices in the Boston exchange building, has gone to Florida.

* * *

The Narragansett Milling Company of New Jersey, with a branch at North Attleboro, Mass., has sold its real estate on Maynard and Chestnut Streets to a company of the same name incorporated under the laws of Delaware. Manager James Conlon states that although he had not received official notification of the transaction, the mill on Maynard Street in all probability will be continued in operation.

* * *

R. C. Bacon of the transportation committee of the exchange, and connected with the E. R. Bacon Company, has returned from a month's trip to the home office of his company at Chicago.

* * *

The Board of United States Army Engineers has recommended an expenditure of \$5,000,000 for improvement at the Oswego Harbor. The plan was backed by the Maritime Association of the Boston Chamber of Commerce and by Oswego business interests. It applies after the opening of the new Welland Ship canal. Much of the heavy movement that is anticipated for export grain via Oswego is believed likely to be shipped out of Boston owing to favorable rail rates via that route. Plans call for the erection of a \$6,000,000 grain terminal at Oswego.

* * *

Mayor Curley of Boston, has recently urged Gov. Frank S. Allen of Massachusetts to have the state construct a grain elevator on the state-owned land at East Boston to allow this market to reap full benefit from the Welland Ship Canal project which opens next July. Gov. Frank G. Allen recently sent a special message to the Legislature urging the study of the possibility of increasing the terminal facilities of the port of Boston. He recommended the erection of a grain elevator at South Boston.

* * *

William L. Morse, widely known in the New England grain trade, and member of the firm of Prentin, Brooks & Co., Holyoke, Mass., died at his home last month, after a long illness. He was an associate member of the Boston Grain & Flour Exchange.

* * *

Boston seed dealers state that the favorable indications which prevailed a month ago in regard to the early opening of spring business have been very fully realized, and the season is fully a fortnight ahead of last year.

* * *

Boston wholesale grain dealers report having had, during March, an average volume of trade for grain, but the mild weather cut down sales of feed-stuffs. Shipments of feed from Argentina continue to arrive and are fully as large as was the case last month. The offerings of mill feed by western shippers are limited and prices are held above the views of buyers. The demand, however, is limited.

* * *

The receipts of hay at Boston during the month of March were 127 cars; straw, three cars; the falling off in the receipts of hay tends to offset the moderate demand, and prices are fairly steady. Shipments to England continue to be made. This export business is through-billed from Canada.

* * *

Receipts of grain at Boston during the month of March, as tabulated by the Boston Grain & Flour Exchange, were as follows: Corn, 1,900 bushels; oats, 47,750 bushels; mill feed, 1,473 tons; corn meal, 1,143 barrels; oat meal, 12,223 cases and 580 sacks.

* * *

During March the following export shipments were made: Wheat to Italy, 63,951 bushels; to Liverpool, 18,359 bushels; to Bremen, 37,345 bushels; hay to London, 2,402 bales; to Liverpool, 927 bales; to Manchester, 825 bales; oatmeal, to London, 2,650 cases.

* * *

Among the visitors to the exchange during the month of March, outside of New England, were the following: J. A. MacLean, Chicago, Ill.; C. J. Carroll, New York City; Frank Cole, New York City; B. Stockman, Duluth, Minn.; W. L. Brisley, Duluth, Minn.

* * *

THE GRAIN MARKET

BY G. A. COLLIER*

Grain markets strengthened materially during the last part of March and the first week in April.

*Of the Market News Service, Bureau of Agricultural Economics, United States Department of Agriculture.

THE AMERICAN ELEVATOR AND GRAIN TRADE

Forty-Eighth Year

Deterioration in the domestic wheat crop as a result of dry weather in Oklahoma and in the southern and western portions of Kansas was an important strengthening factor in the wheat market. Additional moisture is also needed to put the ground in good condition for spring seeding in the Northwest and in the Canadian provinces. Seeding has already started in southern Minnesota and some Dakota points but operations have been retarded by cold weather. Feed grains advanced with wheat but an active inquiry for the relatively small supplies was also a strengthening factor. Rye has developed independent firmness as a result of a continued good domestic milling demand.

The condition of Winter wheat at the first of April was below average and was reported at 77.4 per cent of normal compared with 82.7 April 1 last year and a 10-year average of 80.9 per cent for that date. The April 1 condition suggests that the abandonment this season is likely to be close to the usual average of 11.1 per cent of the acreage sown in the previous fall.

The condition of the wheat crop in the plains states as a whole is above average but is below average in the Ohio and upper Mississippi valleys in all states except Kentucky and Pennsylvania. In the Rocky Mountain and Pacific Coast States conditions are below average, particularly in Washington. Based upon past relationships of the April 1 condition to yield, a crop of around 550,000,000 bushels of Winter wheat is indicated by the April 1 condition. When considered by classes the probable crop of Hard Red Winter wheat in 1930 on this basis would be about 342,000,000 bushels, or about the same as last season. The outturn of Soft Winter wheat would probably be around 169,000,000 bushels or about 22,000,000 bushels less than the 1929 harvest. The probable crop of fall sown types of White wheat would be about 39,000,000 bushels compared with 45,000,000 bushels produced in 1929.

European demand appears to be turning more to North American wheat and export sales have increased somewhat recently, according to trade reports. Offerings from the Southern Hemisphere on the other hand are said to be diminishing but actual shipments are holding fairly large with exports from Australia and Argentina totaling slightly over 5,000,000 bushels during the first week in April.

Argentine wheat is still selling below other foreign wheats in English markets and was quoted in London April 5 at \$1.19 1/2 compared with offerings of No. 2 Hard Winter at Liverpool at \$1.21 1/2. Several European countries appear still to have sufficient wheat to meet local requirements, although European supplies of bread grains are diminishing. Further protective measures are reported being planned by Germany while the French Government has appropriated around \$4,000,000 to permit exports of another 7,000,000 bushels of wheat. Nearly \$8,000,000 have been appropriated for the establishment of emergency grain stocks at various centers in that country.

Stocks of wheat in store in commercial channels in North America are about 37,500,000 bushels larger than at this time last season but this increase in market stocks is probably offset by a decrease in farm supplies. Total supplies of wheat, therefore, in North America, are not greatly different from a year ago when they were considered unusually heavy. The surplus in both the United States and Canada has been reduced very slowly this season and a material increase in export takings during the next few months will be necessary to prevent another large North American carryover.

Supplies in the Southern Hemisphere appear to be only about half as large as at this time last season, based upon official estimates of the crop and trade reports of export shipments to date. According to these figures only a little over 100,000,000 bushels of wheat remain for export in Argentina and Australia compared with about 213,000,000 bushels shipped out from these countries from April through December last season.

United States farmers reports of planting intentions indicate some reduction in Spring wheat acre-

age this season. A reduction of about 15 per cent in Durum wheat acreage is intended according to these reports, but farmers apparently are planning to maintain about the same acreage of other Spring wheat as was harvested in 1929.

RECEIPTS AND SHIPMENTS FOR MARCH

BALTIMORE—Reported by James B. Hessong, secretary of the chamber of commerce:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	326,952	2,011,928	551,196	1,091,463
Corn, bus...	92,088	107,562	.....	43,636
Oats, bus...	39,549	26,850	.....	29,595
Barley, bus...	3,180	691,729	.....	715,539
Rye, bus....	7,993	2,758	.....	.....
Hay, tons....	380	49	.....	.....
Flour, bbls...	76,464	69,426	13,496	5,598

CHICAGO—Reported by Lyman West, statistician of the board of trade:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	359,000	1,363,000	875,000	1,459,000
Corn, bus....	5,892,000	5,708,000	2,907,000	2,567,000
Oats, bus....	1,292,000	1,396,000	1,828,000	2,092,000
Barley, bus...	448,000	641,000	158,000	490,000
Rye, bus....	80,000	189,000	31,000	21,000
Timothy Seed, lbs.	1,229,000	802,000	3,194,000	1,478,000
Clover Seed, lbs.	1,588,000	1,616,000	1,676,000	654,000
Other Grass Seed, lbs.	2,021,000	1,202,000	1,405,000	1,638,000
Flaxseed, bus...	11,000	230,000	1,000	.....
Hay, tons....	7,861	6,289	1,298	802
Flour, bbls...	922,000	956,000	523,000	518,000

CINCINNATI—Reported by J. A. Hallam, chief inspector of the board of trade:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	73,600	186,200	246,400	183,400
Corn, bus....	462,000	456,400	388,500	464,800
Oats, bus....	294,000	180,000	352,000	270,000
Barley, bus...	9,600	8,000	.....	4,800
Rye, bus....	8,400	11,200	16,800	1,400
Hay, tons....	6,050	8,833	.....	.....

DENVER—Reported by H. G. Mundhenk, secretary of the grain exchange:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, cars...	336	219	28	16
Corn, cars...	810	985	229	197
Oats, cars...	35	33	8	8
Barley, cars...	42	70	6	11
Rye, cars...	1	.....	.....	.....
Hay, cars...	57	102	.....	30
Beans, cars...	201	88	48	30
Kafir Corn, cars...	6	5	.....	.....

DULUTH—Reported by Charles F. MacDonald, secretary of the board of trade:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	4,470,063	4,503,809	959,896	1,561,080
Corn, bus....	16,595	17,388	.....	7,092
Oats, bus....	143,101	249,331	5,400	.....
Barley, bus...	64,703	422,825	95,050	220,000
Rye, bus....	31,037	285,673	56,230	128,282
Flaxseed, bus...	17,186	37,332	.....	11,525
Flour, bbls...	.....	.....	90,215	99,515

FORT WILLIAM, ONT.—Reported by E. A. Ursell, statistician of the board of grain commissioners for Canada:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	1,575,953	5,223,290	245,310	496,296
Oats, bus....	214,832	1,853,496	308,427	748,835
Barley, bus...	143,268	944,631	106,882	25,900
Rye, bus....	111,321	283,705	.....	6,300
Flaxseed, bus...	8,180	17,856	2,925	.....
Mixed Grain...	12,225	70,576	7,156	2,299

GALVESTON—Reported by George E. Edwardson, inspector of the cotton exchange and board of trade:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	630,623	177,333	.....
Corn, bus....	1,264,348	.....
Oats, bus....	25,000	.....
Barley, bus....	204,196	.....
Kafir Corn, bus....	204,196	.....

HOUSTON—Reported by W. J. Peterson, chief grain inspector and weighmaster of merchants' exchange:

	Receipts	Shipments		
	1930	1929	1930	1929
Wheat, bus...	111,056	.....	50,000
Barley, bus....
Kafir Corn, bus....	55,714	.....

INDIANAPOLIS—Reported by William H. Howard, secretary of the board of trade:

HAY, STRAW AND FEED

MARKETING of Timothy and Timothy-Clover mixtures in most sections have been about the same to date this season as for the corresponding period last year but Alfalfa and Prairie hays have moved somewhat more slowly particularly in the heavier producing areas, according to quarterly review of the hay trade issued this month by the United States Department of Agriculture. Total hay receipts at the leading domestic markets from July 1 through February this year totaled nearly 20 per cent less than the same period last year.

Exports and imports of all classes of hay have been relatively small this season. Prices during the quarter up to April 1, averaged well below those of a year ago, reflecting the lower prices of other feeds and the slack demand for dairy hays. A demand somewhat below normal, particularly from dairy interests, and the generally lower quality of the offerings account largely for the smaller marketings this year.

Around 75 per cent of the marketable surplus of Timothy had been shipped out to the middle of March, according to shippers' reports, compared with a little over 70 per cent marketed to the corresponding date last season. Since supplies of this class of hay were about the same in 1929 as in 1928 the amount available for market during the remainder of the season is probably slightly smaller than a year ago, particularly in New York, Pennsylvania, Wisconsin and Missouri. Stocks in Michigan were reported slightly larger March 1 than last season but practically the same as a year ago in Ohio, Indiana, and Illinois.

Alfalfa has been marketed more slowly this season than last but about as rapidly as in other recent years. About 80 per cent of the surplus had been shipped to the middle of March compared with close to 90 per cent to the same date last season. Marketings were smaller in practically all important producing states except New York and Missouri where about the same percentage was shipped out as from the previous crop. Shipments were relatively smaller in California, Colorado, Idaho and Nebraska. The 1929 crop of Alfalfa was practically the same as that of 1928 so that supplies of this class of hay appear somewhat larger than a year ago, particularly in Nebraska and on the Pacific Coast. Trade reports, however, indicate that the quality of the remaining supplies in the central western states is generally below average.

Less Prairie hay had been marketed to the middle of March than during the same period last season. Shipments have been unusually light this year from Kansas and Nebraska, reflecting the sharp competition from timothy hay and a gradually decreasing market for prairie hay.

TERMINAL RECEIPTS REDUCED

Arrivals at the principal terminal and distributing markets have been smaller than would be indicated by reports of country shipments. Arrivals of hay at 13 of the leading markets from July 1, 1929 through February, 1930, totaled only 41,553 cars compared with 49,495 received at these markets during the corresponding period of the previous season. Receipts at Kansas City were approximately 2,100 cars smaller than last season while about 1,000 cars less hay were received at Omaha, 1,300 less at Chicago, nearly 700 less at New York and about 300 less at Boston. Arrivals at St. Louis exceeded those of the previous year by 330 cars. Receipts by rail at Los Angeles were only about one-half as large as last season but a large proportion of the arrivals at that market are by truck. Truck movement to other markets, particularly those in the east, is also relatively large.

No marked shifts in movement from producing

This Season's
Hay Trade

to consuming areas were reported for the quarter under review. Timothy has moved principally from New York, Pennsylvania and the east north central states to the more eastern and southeastern states. Alfalfa continued to move from the central western states principally to the South and Southeast with a relatively large proportion going to Louisiana and Mississippi. Smaller amounts of alfalfa moved from the Central West to Wisconsin and eastern States because of the unsatisfactory market for dairy products.

Local consumption of Alfalfa was fairly heavy in Arizona and New Mexico. Shipments from these states moved largely to Texas and Louisiana, although for a short period early in 1929 moderate amounts moved from Arizona to southern California.

The increased movement to California was to supplement local supplies which were running low as a result of the prolonged drought during the latter part of 1929. Some hay from central California was also shipped to the southern part of that State. The movement of Alfalfa from California to east coast markets was of only moderate volume. More Prairie appears to have been used locally this year since competition from Timothy at terminals has reduced the market outlet for this class of hay. Stockyards and army posts furnished the principal market for Prairie hay during the past quarter.

HAY PRICES SHARPLY BELOW THOSE
A YEAR AGO

Prices of all the important market classes of hay at the principal markets for the quarter averaged sharply below those for the corresponding period a year ago. Alfalfa declined on an average of around \$5 per ton for the quarter, being about \$7 per ton lower on March 15 than at the corresponding date last year while Prairie averaged around \$2 per ton below a year ago. Timothy, on the other hand, advanced slightly during the quarter and on March 15 averaged only about \$1 per ton below quotations for the corresponding period last year, although continuing somewhat below prices for the past several years.

This comparative strength in Timothy was due to scant supplies of good quality hay and a continued good demand for that class of hay from the northeastern and southern consuming areas. The seasonal decline in Alfalfa prices appear to have come earlier this year and at a time when prices in other years have held about steady. This decline in Alfalfa is largely the result of a restricted demand occasioned by low prices for dairy products and a generally lower quality of Alfalfa offerings.

About the usual seasonal demand was reported at the middle of March although greening pastures and open ranges in the central and Southwestern, and fairly large supplies of local forage in the southern and southwestern states were reducing market inquiry. In most of the consuming areas in the South and Southwest local supplies of forage, including soy bean and peanut hay, crab grass and Johnson hay, were reported generally sufficient to supply local requirements for that class of forage until new hay becomes available. Pastures in these areas were also generally in good condition at the middle of March. Lack of moisture has reduced pasturage in the Southwest, particularly in western Texas, New Mexico and Arizona, which

tends to increase demand for Alfalfa in that area. Weather recently has been favorable for pastures and green feeds in California, Washington and Oregon and has restricted the demand for hay. Relatively low prices of feed grains, particularly for barley, together with the unsatisfactory dairy situation, have also restricted demand for hay, especially in the dairy sections of the northeastern states.

The export demand for hay was only moderately active during the quarter. Exports for the season to date have totaled only about 5,700 long tons compared with 8,600 long tons for the corresponding period last season and 10,200 long tons two years ago. About 23,600 long tons of hay were imported from July, 1929 through February, 1930, compared with 25,000 long tons for the corresponding period last season and 49,500 long tons two years ago.

HAY ACREAGE IN 1930 LIKELY TO EQUAL
THAT OF 1929

Farmers' reported crop plans this spring indicate that about the same acreage will be cut for hay in 1930 as in 1929. Since 1920 the same hay acreage has fluctuated within a comparatively narrow range and generally the increases in legume hay have about offset the decreases in timothy and grain hay. Should present intentions be carried out, and average yields secured, the 1930 crop will be somewhat less than that cut in 1929 but slightly more than the average for the past five years.

Somewhat smaller hay acreage is planned in the New England and North Central States. These areas produce principally Timothy and Timothy-Clover Mixed hays. On the other hand, the Southern States which grow largely annual legumes and the Western States which grow principally Alfalfa and Prairie hay intend to cut a larger acreage than last year.

A GROWING FEED MARKET

By W. B. CARLETON

Feed dealers in southern Indiana are coming into their own more and more with many of the farmers engaging in the chicken raising business. There never was a time when poultry feed was in better demand than it has been this winter and feed dealers say that with the raising of more chickens this promises to become one of the leading industries among the southern Indiana and central Indiana farmers. Thus the farm problem promises to solve itself in a measure, and it is expected that one will hear less and less of the worries of the farmers, especially Indiana farmers.

The writer lives in a farming community and being the editor and publisher of a country newspaper comes in contact with farmers every day and is in position to study their wants and handicaps. He has been agreeably surprised during the past few years in seeing many farmers who had been "up against it," so to speak, pull out from under the load and who now seem on the road to prosperity. This is all due to the fact that these farmers are paying less attention to the growing of crops and more to the raising of poultry.

That southern Indiana is destined to become a great poultry center in time is the opinion of many farmers and feed dealers to whom the writer has talked during the past year or two.

In many of the southern Indiana counties, notably Warrick, Spencer, Dubois, Perry, Crawford and Harrison, there is a great deal of poor land. Take Warrick County, for example, with its 10 townships. Of these 10 townships, six of them have been receiving state aid for the past several years in order to maintain their school systems. If it were not for this state aid, it is said that schools could not exist. This indicates there is something wrong

with the land. That is the trouble. Much of the land is poor and farmers for years have tried to eke out an existence on it and have made only a poor living. In fact during the past few years quite a few farmers in that county have given up the fight and have moved away from these poor farms. Now there seems to be a movement back to the farms. The man who abandoned the farms and moved to the towns and cities soon found that city life too had its worries. Men who had been accustomed to farming all their lives soon realized when once in the city that only the fittest survive and that unless one is skilled well in some good trade, he has a hard time making ends meet.

Poultry farms are springing up on all sides. The average man finds that on a small farm, if he will devote all his time to the raising of poultry, especially chickens, that he will be able to more than keep the proverbial wolf from the door; in fact he can have a little spare cash at the end of the year. Feed dealers and grain dealers have encouraged the farmers in this move.

Hog raising in southern Indiana also is being conducted on a larger scale each year and feed manufacturers and dealers say this also has created a better demand for feeds. Many of the smaller farmers are growing less corn and wheat and raising more hogs. In many of the smaller towns there now are men engaged in the feed business, where a few years ago about the only place one could buy feed was at the small flour mill. Conditions have changed rapidly and the change has been for the better.

Southern Indiana feed men have not been able in the past to conduct their business altogether on the cash basis. There was a reason for this. For years credit was the rule in all lines of business. The farmers had made it a rule to buy what they wanted from the local mill or feed man and pay him after the crops were gathered. But there came a time when farmers were not able to do this. After one or two crop failures, and this has happened many times, farmers soon found they could not pay their bills when due, or even after they had gathered their crops. They did not have the money. But with more of the farmers turning to hogs and chickens they have more ready cash at the end of the year. This is a certain game. They know they can sell their hogs and chickens and for these they receive the cash and because of this it is not necessary to ask credit from the feed man. They walk in, buy the feed and plank down the money. This is better for everybody concerned. The writer has interviewed a number feed men recently and they have told him that more and more they are getting their business on a cash basis and that the time is fast coming when all farmers will "get the habit" and pay their way as they go.

PAPER PLANT IN ARGENTINA TO UTILIZE WHEAT STRAW

A plant for the manufacture of paper—using wheat and linseed straws as a raw material—which has been under consideration for some time, will be erected near Rosario, Argentina, in the near future, according to a report from Consul Raymond Davis, made public this month by the Department of Commerce.

The new company, which will be known as the Celulosa Argentina, will have a fixed capital of 1,500,000 paper pesos (approximately \$636,750). The site of the plant is in Juan Ortiz, about 12 kilometers distant from Rosario, on the railway line between that city and Santa Fe.

Pesos 1,200,000 (\$509,400) have been, or will shortly be, spent in machinery and construction. One building is already completed, and three others are expected to be finished before November, 1930.

The local trade believes that no attempt will be made to manufacture news-print at this plant, inasmuch as this class of paper enters Argentina free of duty and at a cost that it would be impossible for the local industry to meet.

"Papel de obras," which is extensively used as a book and writing paper and which does enjoy

tariff protection, as well as wrapping, wall, and other papers will be manufactured at the new plant. The mill's initial output will be 8,000 metric tons annually.

MINERALS WITH MASH

The shell-package which holds the egg yolk and white is of extreme importance these days when eggs travel so far to market. Feed to develop the proper shell texture is as important as that for making the correct proportion of yolks and white. Hatchery eggs, too, must have strong shells because they allow less evaporation and can be held longer. Thus it is important that breeding hens have an ample supply of minerals and shell-forming material.

Three sources of minerals, in addition to those contained in the regular ration, are all that are required by the usual flock—bone, salt and either oyster shell or high grade limestone. Bone may form from 2 to 4 per cent of the mash, salt one-half to 1 per cent, while oyster shells or limestone are to be kept available in hoppers at all times. Simple and cheap but effective commercial mixtures are on the market for those who want assurance of a uniform supply, and a saving in labor.

CHILTON AIDE TO MILNOR

J. M. Chilton, manager of the Checkerboard Elevator Company, subsidiary of the Ralston Purina Company, St. Louis, Mo., has accepted the appoint-



J. M. CHILTON

ment as assistant general manager of the Grain Stabilization Corporation. He has taken up his duties in Chicago as aide to George S. Milnor, general manager of the corporation.

Before joining the Checkerboard company, Mr. Chilton was associated with the Marshall Hall Grain Company, St. Louis, and previously with Hall-Baker Grain Company of Kansas City. He is considered one of the best merchandisers of wheat in the country and has many friends among the flour and feed millers.

Before entering the commercial grain trade, Mr. Chilton was associated with the Department of Agriculture's grain inspection department. He is a director of the Merchants Exchange of St. Louis.

OAT FEED STUDIED

Oat feed, a by-product of the manufacture of oatmeal, consisting of re-ground oat hulls, oat shorts and oat middlings obtained in the first hulling of oats, has a feeding value 70 per cent that of wheat bran when fed to dairy cows in amounts not to exceed one-fourth of the grain ration, according to the results of four feeding trials conducted at Madison, Wis.

Due to its high fiber and low protein content oat feed in the dairy ration necessitates a larger amount of high protein concentrate in the grain ration than when wheat bran is used. After the expense of this protein supplement is included the records

indicate a value for the oat feed of approximately 70 per cent that of bran.

Where oat feed has been fed to the extent of 10 to 20 per cent by weight in fattening rations of pigs, and from 15 to 30 per cent of the concentrates in fattening rations of steers and lambs, oat feed was found to be worth from 40 to 50 per cent as much as corn or hominy feed. When fed at the lower levels for all three classes of livestock, oat feed has at times exceeded 50 per cent of the value of corn or hominy feed. In a number of instances, especially with pigs and steers, small amounts of oat feed have slightly increased the gains over those of the control lots, due apparently to the large consumption of feed which seemed to be stipulated by small amounts, (10 to 15 per cent) of oat feed in the mixture.

ERGOSTEROL IN YEAST

While no one has been able to find just what is the nature of the vitamin D, it is now agreed upon by investigators that the carrier of vitamin D is ergosterol.

Yeasts and molds have been found to be particularly rich in this important substance, and readily yield to the big blue light's ray.

All ordinary foodstuffs and feedstuffs carry such a limited amount of ergosterol that it is impossible for animals or man to consume quantities that will be injurious. It is only with rare compounds concocted in the chemist's laboratory that there is danger in feeding. These rare ergosterol compounds are exceedingly potent when irradiated, being 75,000 times more effective than cod liver oil as a source of the fourth vitamin. There is as much vitamin D in an ounce of rayed ergosterol as there is in about three and a half tons of cod liver oil.

"LIME BALANCE" FOR COWS

Milk with four to eight times more of the health-giving vitamin D than is in normal milk, has been produced by cows fed a ration containing 200 grams of irradiated yeast daily.

"The enrichment of milk in vitamin D has practical importance," says a Wisconsin University official, "as invalids and persons suffering from soft bone disorders have a need for such potent milk."

The discovery of vitalizing milk by the simple method of feeding irradiated rations was a by-product of an unsuccessful effort to make dairy cows maintain their "lime balance" with irradiated grains or roughages. Dairy cows, tests proved, are not able to assimilate enough lime from sources other than green pastures, to maintain their bodies as well as the requirements of a 40-pound daily milk flow.

When the irradiated yeast was fed in an effort to replace natural green roughage, the vitamin D showed up in the milk but not in the body of the animal producing it.

MOUNTAIN FEED EXPERIMENTS

At Fort Collins, Colo., the state experiment station feed experts have been testing various ingredients and methods for fattening lambs. E. J. Maynard reports that barley fed with Alfalfa hay produced lighter gains and less finish than corn.

In this test, Trebi barley showed 83.4 per cent of corn's value while Coast (California feed) barley showed only 73.4 per cent of the corn value when fed with hay. Whole barley and steam-rolled barley produced about the same results.

Cottonseed meal increased the gain but also increased the cost of unit gain. It proved economical when fed in rations containing corn fodder, corn silage, beet molasses or wet beet pulp. Corn silage had 34.9 per cent the feeding value of cut corn fodder, pound for pound. An average of three years shows corn silage worth 38 per cent the value of cut corn fodder, pound for pound.

Two rations were outstanding in gains produced: (1) The ration including wet beet pulp and (2) the self-fed mixture of ground feeds and beet molasses. Lambs in these two lots were finished and went to market three weeks sooner than the rest.

Feed Plant Efficiency Made to Order

Balanced Rations for the Rocky Mountain Trade Come

From Plant With Several Non-Standard Mechanical Features

By GEORGE R. HARRISON

WERE not the owners of the T. B. Hord Grain Company of Nebraska cattle feeders as well as grain men they might never have seen the advisability of adding to their business the modern feed mill that it now maintains at Columbus, Neb. But 10 years ago the mill was built to join the Columbus elevator owned by the company and since then its ground feeds have been shipped for sale all over the western corn belt and eastern mountain region. Headquarters for the company are at Grand Island. The elevator and the mill at Columbus are a branch as likewise is another large elevator at Aurora and a plant for milling and kiln-drying corn, located at Schuyler, Neb.

When the mill at Columbus was established no expense was spared to make it one of the best of its size to be found anywhere. So completely is it equipped that two men can do as much as a dozen could do in a mill without such equipment. Practically every operation is automatic, so that G. Olsen and C. L. Keck, the mill men, have but little else to do than turn switches and pull levers. E. C. Gammel, manager for the Hord Company at Columbus, can operate the plant, elevator and mill combined, if need be, without a great amount of worry. The elevator has capacity for 250,000 bushels; when necessary, grain is drawn by conveyor spouts directly out of the elevator and poured into the hoppers of the mill adjoining.

"What the market didn't supply in the way of equipment, we went ahead and built," said Mr. Olsen, who has been in the Hord employ for the past 12 years. And he pointed to the automatic scale that in ordinary mills becomes stationary, bolted to the ceiling. But in this case, the scale is portable from bin to bin, for it rolls along steel tracks. The trackage was built by the men to Mr. Gammel's order; the track was first suggested by Mr. Olsen himself.

Common barn-door track and rollers were purchased from the hardware store and the men did the rest. Now the sacker can be used underneath any one of four bins while another scale sacker, resting on rollers on the floor, is portable in the regular way. With the track sacker, Olsen says that they can sack 300 bags an hour while with the regular sacker the speed is 400 to 500 bags.



E. C. GAMMEL, MANAGER OF HORD PLANT
WITH J. FRISCHOLZ, ASSISTANT



The plain sacker was made by Mr. Olsen for using with one particular bin. The spout is swiveled to the bin and down at the end of the spout is a lever to open and close the slide over the end of the spout, and a boot to steer the feed into the sack. The sacker is on legs for moving about the circle for convenience.

Because the mill is so well equipped and therefore able to deliver the farmer his load of ground feed in double-quick time, a big local business has



CEREAL CUTTER IN HORD PLANT

been built up. But greater by far is the business that reaches the Rocky Mountains. And to facilitate carloadings to the West, filled bags are scooted out of the second story of the mill directly through the box car doors. The chutes are downward and outward curving devices with mouths opening at the building's outside and facing the open doors of the cars on track. Only a small extension is necessary to complete the route across the gap and then the momentum of the sacks in their downward flight split the bags one by one into the car as fast as any one man can stack them up where they belong.

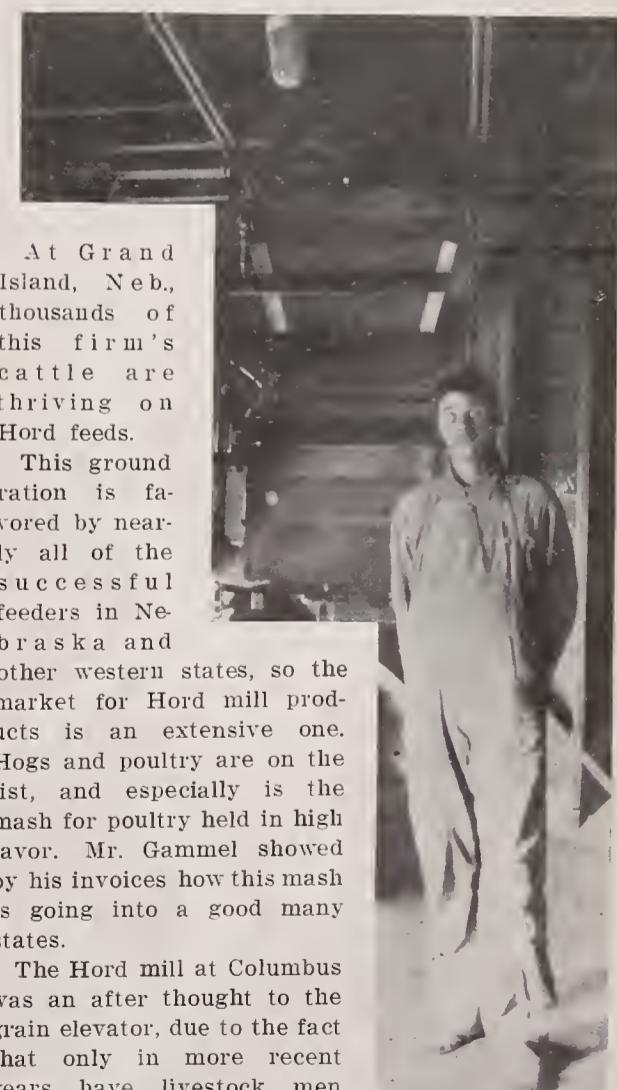
Through most of the year the Hord mill is extremely busy. A little quietness is noticed in the spring, Mr. Gammel said, but a little later things begin to hum, for the new feeding season all over the great region where livestock is the main industry. The Hord company itself owns cattle.

Another feature of the mill is the cereal cutter, made by the S. Howes Company, Inc., Silver Creek, N. Y., which enables the Hord company to specialize in steel-cut corn granulated in four sizes. Corn for this process is obtained from the kiln-drying

plant at Schuyler, the first good-sized town eastward along the Union Pacific Railroad. A corn separator puts each size of cutting into its separate bin and then when needed for the trade it is drawn down, weighed, and sacked for shipment. No piece of metal can pass into and ruin any of the Hord mills, for there are the magnets to snatch out the steel, located ahead of the cereal cutter, the Allis Chalmers Roller Mill that grinds 100 sacks an hour, or the attrition mill that can turn out a 40-bushel load of ground feed in 10 minutes.

Olsen notes how the attrition mill is reversed in its motion every day merely by a different placement to the electric switch, making the wear even.

The feed mill needed a car puller the same as the elevator and Manager Gammel made the installation. This puller is inside the mill, and by a pulley arrangement on the outside, it can spot as many as 10 or 15 cars at a time. Of course, this, like the rest of the equipment is electrically operated, each unit having its individual motor, or two of them, as the requirements happen to be. The attrition mill is operated by two electric motors of 50 horsepower each.



At Grand Island, Neb., thousands of this firm's cattle are thriving on Hord feeds.

This ground ration is favored by nearly all of the successful feeders in Nebraska and other western states, so the market for Hord mill products is an extensive one. Hogs and poultry are on the list, and especially is the mash for poultry held in high favor. Mr. Gammel showed by his invoices how this mash is going into a good many states.

The Hord mill at Columbus was an after thought to the grain elevator, due to the fact that only in more recent years have livestock men generally discovered the virtue in ground rations.

OLSEN'S SCALE-TRACK SETUP

SWEET FEED TRIAL BY U. S.

In feeding trials with dairy cows on advanced registry test at the Beltsville (Md.) Experiment Farm of the Bureau of Dairy Industry, cane molasses fed at the rate 1.1 pound per cow per day to replace the same quantity of hominy feed in the ration proved slightly less valuable, pound for pound, for milk production than the latter feed. It was found also to be uneconomical for supplementing rations already satisfactory from the standpoint of feeds and feed nutrients.

However, cane molasses has some value as an appetizer for very high producing cows on test and for mixing with unpalatable concentrates and roughages to obtain a greater consumption of these feeds, according to the bureau.

MOSS AND CANE FOR FEED

A special process of drying bagasse flour, by-product of sugar cane crushing plants, has been developed in the Philippine Islands, and the dehydrated product is said to make a good base for certain stock feeds. Bagasse is used extensively in the Southern States for the manufacture of composition flooring and other products, and it is thought that the Philippine process plan may be given a trial there in the near future.

Another feed development gaining headway in the South is the utilization of tree moss for roughage. When cut at the right season, and ground to the consistency of coarse meal, the moss is reported to be valuable because of its palatability and nutritional content.

FEED MARKET FIRM

Commercial feed stuff prices continued upward at the larger distributing marketings during the week ending April 9, with active demand for feed for current needs, according to the weekly feed market review of the United States Bureau of Agricultural Economics. Inquiry for deferred deliveries was less active than for immediate shipment. Supplies in mixed feed manufacturers' and in interior country dealers' hands, prior to the recent advance, were apparently very small and the increased consumer demand at the close of March forced these interests into the market to replenish their supplies. Wheat millfeeds were \$1 to \$3.50 per ton higher than the week previous. Fair inquiry for the small offerings of linseed meal advanced prices \$1 to \$4.50 per ton at central western markets, but prices held about unchanged at western cities. Cottonseed meal was unchanged to \$1.50 higher with prices in the Southeast advancing relatively more than in the Southwest, reflecting the smaller mill stocks and good demand from eastern interests for southeastern cottonseed meal. Corn by-product feeds, gluten feed, and meal and hominy feed were higher. Alfalfa meal also advanced.

The sharply higher feed prices during the three weeks ending April 9 tended to develop considerable interest in the pasture and hay situation. Pasturage conditions about this time last year were unusually good and so far this year do not appear much different. Pastures are much better on the Pacific Coast than last year and ranges are generally good in the Intermountain states. Pastures and meadows have done well in the central western states, although the recent dry weather has reduced their carrying capacity. In the Eastern States conditions are generally favorable.

Hay supplies appeared slightly larger than a year ago. Marketing of Timothy and Timothy-Clover mixtures in most sections have totaled about the same to date this season as for the corresponding period last year but Alfalfa and Prairie hays have moved somewhat more slowly, particularly in the heavier producing areas. Totals hay receipts at the leading domestic markets since July 1 have been considerably less than during the same period last year. Exports and imports of all classes of hay have been relatively small so far this season. Prices have averaged below those a year ago, affected principally by the slack demand for dairy hays and the generally lower quality of the offerings.

Production of offal as indicated by flour produc-

tion at the principal milling centers continues of seasonally good volume but demand for wheat feeds for immediate shipment appears greater than offerings. Prices of bran at the principal distributing markets were \$1 to \$2.50 higher, standard middlings and brown shorts \$3.25 higher, and flour middlings 50 cents to \$3.50 higher. This being the spring pig season, manufacturers of balanced hog feeds in the central western markets reported an active demand. Poultry feeds were in moderate request at most markets but dairy rations are comparatively slow sale. Active demand prevailed in the Northwest for bran and middlings for immediate shipment but inquiries for deferred deliveries were relatively quiet. Even feed for prompt delivery at Minneapolis was available at some discount under immediate with April deliveries available at 75 cents under and May \$1.50 under the immediate price. Inquiry was slackening at Chicago with the recent decline in grain prices. The situation at Buffalo was unusually strong with light offerings in urgent demand, especially for bran. Offerings were confined almost entirely to resellers as mills were sold up and out of the market for the month and were reported about two to three weeks behind on shipping instructions. Central western markets were also firm with continued active demand for offerings for immediate shipment which were light and firmly held. However, demand was showing signs of strengthening at the higher prices. Dry weather over the Southwest has retarded pastures somewhat and green feed and has stimulated demand for commercial feedstuffs. Bran and shorts were offered for deferred shipment at discounts of \$1 to \$2 under spot prices, but interest was very light. Interest for future shipment was also slack at Omaha. Western markets were slightly higher with the strength in outside markets largely responsible for the upturn rather than any material increase in local demand. Cheap feed barley was selling at \$8 to \$10 under wheat mill feed prices at interior points which has retarded consumer inquiry for mill feeds. Pasturage was deteriorating somewhat in local areas of California. Moderate receipts were in strong demand at Los Angeles and prices advanced slightly.

Considerable interest has developed regarding the importation of Argentine bran in the United States. Official export data indicate that 298 tons were received at New York in January and 1,394 tons in February while 1,001 tons were received at Boston during February. Official data on imports during March will not be available until the latter part of this month but trade reports indicate that from January through March about 20,000 tons were received at New York and 20,000 tons at other Atlantic seaboard ports. About 5,000 tons have been received already at New York and 15,000 tons are reported sold for April, May, and June delivery. The quality of the bran is reported relatively high in protein and fats while the middlings are somewhat coarse. Out of the 20,000 tons received at other Atlantic seaboard ports, according to trade reports, slightly over 2,500 short tons have arrived at Boston. Three more ships are due to arrive in April with about 1,500 tons and possibly three more in May and June with about 1,700 short tons. Although definite information does not appear to be available at Philadelphia, considerable offal has been sold. About 4,000 to 5,000 tons are reported to have been worked on the Pacific Coast for arrival during April and May, of which about 2,000 tons were destined for San Francisco. Most of this feed was sold for March to June shipment.

Linseed meal prices advanced relatively more than other important concentrates being \$1 to \$4.50 higher. This advance was confined almost entirely to the central western markets as prices were unchanged at Denver, Los Angeles, and San Francisco. The market was strong to higher at Minneapolis with offerings extremely light. Interest beyond immediate shipment was dull due to the small available supplies of flax seed, but the Chicago market was reported offering for the last half of April shipment at \$53, or \$2 under spot. The situation was firm at Buffalo with fair scattered demand for the moderate offerings by mills and

resellers. Thirty-four per cent Canadian linseed meal was offered at Boston for prompt shipment at \$50, but domestic meal on the same basis was quoted at \$54.25 per ton. Minneapolis mills were reported offering linseed meal at Kansas City at \$61.30 but resellers were offering this feed at \$59.30 per ton. Demand was reported light and only for occasional small lots.

Cottonseed meal prices were unchanged to \$1.50 per ton higher. Small mill stocks and active demand from eastern feed and fertilizer interests advanced prices in the Southeast relatively more than prices have advanced in the Southwest. Gluten feed and meal prices advanced \$1 per ton at most markets but hominy feed was \$1 to \$4.50 per ton higher. The gluten situation was strong with good demand for the fair offerings. Wet process corn grindings during March were the smallest for that month since 1925 and totaled only 6,065,453 bushels. Hominy feed was also very firm with moderate demand for the light offerings. Mills were reported sold up and out of the market and about a week behind on shipments. The recent advance in corn prices is partly responsible for this firm situation. Alfalfa meal prices advanced, influenced by the general strength in the feed situation and the higher alfalfa hay prices. However, demand has improved slightly. Prices were sharply higher at Los Angeles as a result of the scarcity of hay of grinding type.

DRIED MILK IN PENN TEST

A total of 23 calves were used in a year-long feed experiment at State College, Pa., with P. S. Williams and S. J. Bedschel directing the work to obtain data on the value of skim milk powder.

The results bore out previous tests which indicated that calves can be raised "very successfully" on a dry ration containing skim milk powder, beginning at four to six weeks of age. The average daily gain was only slightly less than normal. The skim milk powder was discontinued at about four months of age. The maximum amount of skim milk powder used in the dry ration was 35 per cent. Twenty per cent of ground oats, 10 per cent of wheat bran, and 5 per cent of soluble blood flour were used, with the remainder of the ration made up of Yellow corn. The latter was increased as the skim milk powder was reduced.

THE CLOVER HAYS

The history, botanical description, growth habits, etc., of various Clover hays are set forth concisely in a publication now being distributed by the Ontario Department of Agriculture. Taking up common Red Clover first, attention is called to the fact that this plant, now so great a factor in the North American hay trade, is an "immigrant roughage."

Red Clover is a native of Europe, northern Africa, Siberia, and south-western Asia. The history of its cultivation is much older than that of any of the grasses. There are records of its use as a cultivated plant at least two thousand years old. Red Clover is mainly a biennial, a few plants being short-lived perennials. It has deep branching tap roots, which enables it to withstand drought and which have an excellent mechanical effect on the soil. The inflorescence is in the form of a dense head, which is, when fully grown, nearly an inch in diameter, and may be bright red, or purple, in color. The flowers are cross-fertilized chiefly through the agency of bumble bees. The stems grow erect and vary much in height. The leaflets, which are larger than those of Alsike or White Clover, have distinct V-shaped white markings.

In the year in which it is seeded, Red Clover produces little more than its root system and sufficient growth to protect itself over winter. In the second season, it reaches the hay condition from 10 days to two weeks earlier than Timothy and usually produces a good second growth after being cut for hay. Red Clover is adapted to growing on various types of soil, the most suitable soils being well-drained clay loams with a fair amount of lime and plenty of humus. Red Clover does not grow successfully on poor or water-logged soils. An open

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subsoil is almost as necessary for successfully growing Red Clover as is the required surface soil.

Red Clover seed is about one-sixteenth of an inch long and varies in color from a yellow to a dark violet or purple. The presence of deadish brown shrunken seeds indicates immature seed and seed of low vitality. Seed is usually obtained from the second crop, which is cut when the heads turn brown and when the stems are drying up. The legal weight is 60 pounds per measured bushel. It may be successfully sown in the spring with a nurse crop of barley or other cereal grain. Good results are also obtained by seeding Red Clover on Winter wheat in the early spring on a fresh fall of snow. About 10 to 12 pounds of seed is sown per acre when this clover is not sown in combination with grasses or other Clovers.

Red Clover is one of the most important fodder plants grown. It has a high feeding value, especially for young growing animals and milk cows. It is one of the best improvers of the mechanical condition of the soil and is highly valuable as a green manuring crop. Besides its use for hay and pasture and as a green manure, it is also grown for soiling purposes and as a silage crop. Red Clover should be cut for hay when just past full bloom and when the heads are beginning to turn brown. The leaves are the most valuable part of the hay crop and the method of curing adopted should insure the saving of the highest percentage possible of this part of the plant. Red Clover is sometimes pastured the first autumn, but care should be taken that it is not pastured too closely, or too late in the season. Mammoth Red is an important strain of Red Clover. It is larger, coarser, and several days later in maturing than common Red Clover. Unlike common Red Clover, it only produces one good cutting of hay in a season.

A SWEDISH HAY

Alsike Clover, according to the department, was first cultivated in Sweden about 160 years ago, and takes its name from a parish in that country. In the last 60 years, it has been extensively grown throughout Europe. In Canada, its growth is largely confined to the eastern provinces and chiefly to Ontario. The city of Toronto is one of the principal Alsike Clover seed markets of the world.

Alsike is a perennial which, on good soils, frequently lasts from four to six years. Its root system is less deep and more branching than that of Red Clover. The heads are smaller and grow on longer stalks than those of Red Clover. In color they vary from a white to a pinkish rose. The flowers are cross-fertilized chiefly through the agency of honey and bumble bees. The stems, which are smooth, grow erect and usually do not reach a height greater than two feet. The leaflets are smooth, and are shorter and comparatively broader than those of Red Clover. They have no V-shaped white markings. Alsike commences growth later in the spring than Red Clover. It blossoms later than this clover and does not reach the hay condition until just before Timothy. Alsike produces less second growth than Red Clover.

The most suitable soils for Alsike are moist clay and clay loams, although it gives good results on other types of soil where there is a good moisture supply. Alsike may be successfully grown on soils which are too wet for Red Clover.

Alsike seed is about one-half the size of Red Clover and is heart shaped. It varies in color from a light green to almost a black. The seed is obtained from the first crop, which is often pastured for a time in the spring. Plants should be cut for seed when the heads have turned brown. The seed shells easily and, to prevent loss, the plants are often cut in the early morning when they are wet with dew. The legal weight per measured bushel is 60 pounds. Alsike may be successfully sown in the spring of the year with a nurse crop of barley or other cereal grain. Good results are also obtained when it is sown on winter wheat in the early spring on a fresh fall of snow. About six pounds of seed is sown per acre when this clover is not sown in combination with grasses or other clovers.

In total value, Alsike is not the equal of Red

Clover. It, however, surpasses this clover in being more perennial in character, in being a better pasture clover under most conditions, and in being a better hay plant on soils too wet to successfully grow Red Clover. It should be cut for hay when the plants are in full bloom or a small percentage of the heads have turned brown. It remains green and succulent longer than Common Red and is not injured as much when cut over-ripe for hay as is this clover. Alsike seldom produces more than one crop of hay in a season. The hay is cut and cured in the same manner as Red Clover. Alsike is a valuable clover in permanent pasture mixtures, especially on low land. It is one of the most valuable of honey plants. There is less variation in the individual plants of Alsike than is found in Common Red and there are no commercially recognized varieties or strains.

TO RELEASE FEED FACTS

The ninth annual Livestock Day at the Ohio Experiment Station in Wooster will be held on Friday, April 25. Among the experiments to be explained then are two determining the value of bulk molasses and palmo midds in rations for fattening cattle.

Under the direction of Paul Gerlaugh, chief of the department of animal industry, 100 steer calves, divided into five lots, are on an experiment to test the value of bulk molasses in the ration for fattening cattle. All five lots receive the same amount of protein supplement, silage, and hay. Lot 1 receives a full feed of shelled corn. Each calf in the second lot receives the same ration except that two pounds of bulk cane molasses are substituted for two pounds of shelled corn. Each calf in Lot 3 receives two pounds of bulk molasses and as much shelled corn in addition as it will clean up. The calves in Lot 4 enjoy the privilege of obtaining bulk cane molasses at will. In addition they are fed as much shelled corn as they want. Two pounds of beet molasses are fed to each calf in Lot 5 in addition to a full feed of corn. This test started on December 10, 1929.

Two lots of home-grown black calves are testing the value of palmo midds as a substitute for one-third of the shelled corn in the ration. This test started on December 5, with one lot receiving a full feed of shelled corn in addition to protein supplement, silage, and hay. The second lot is full-fed a mixture of two parts shelled corn and one part palmo midds, in addition to an amount of protein supplement, silage, and hay similar to that fed the first lot. The calves on both tests will be shown, their results discussed, and a market appraisal given them on Livestock Day.

In addition to the above tests, the results of those with about 20 lots of pigs, nearly marketable, will be discussed.

FEED DEALERS' DAY: APRIL 17

The Ohio Experiment Station announces a special day for feed merchants to be held at Wooster on Thursday, April 17. This day is planned for the purpose of familiarizing feed merchants with some of the recent developments concerning feeds and rations. The program will start at the dairy barn at 9:30 in the morning and continue until noon when lunch will be served on the grounds. The afternoon program will be concluded about 3:30.

Rations play an important part in determining the profitability of putting on gains, filling the milk pail or the egg basket. The feed merchant has an important part in making the most efficient feeds available to the community. New feeds are continually coming on the market and new combinations of feeds are being developed. Some of these new feeds and combinations are being tested at the experiment station now and the results to date will be reported on Feed Merchants' Day.

The Departments of Animal Industry and Dairy Industry are co-operating toward making the day's program of as great service as possible. Groups of laying hens, dairy cows, hogs and beef cattle that are on test will be shown in the morning and the progress of the experiments explained. The

afternoon will be given over to a discussion of results obtained in previous tests that will be of interest to feed merchants located in the Ohio territory.

PLANT FOOD RATIOS

Elevator operators handling commercial fertilizers as a sideline will find a round or two of sales ammunition in the plant food data assembled by the Ohio experiment station.

Fertilizer buyers have the choice this season between the usual grades containing around 20 per cent total plant food and concentrated grades of the same ratios but carrying double and in some cases three times as much plain food per ton, declare station authorities. These concentrated materials offer the advantage of slightly lower cost per unit of plant food contained and less labor in hauling and applying. Farmers are raising the question as to whether a given amount of plant food in these concentrated grades may be expected to give as good results in the field as the same amount of plant food in the less concentrated materials.

Agronomists of the Ohio Agricultural Experiment Station have been studying this question for two years. The evidence to date indicates that the concentrated grades are quite satisfactory.

In one experiment a commercial 2-12-2 has been applied to wheat at rates of 200, 400 and 600 pounds per acre, these being compared in each case with one-half as much of a 4-24-4 made by the same company. The work has involved six comparisons for each rate, 18 in all. In no case has there been any significant difference in the yields obtained with the two fertilizers.

Another experiment has included four individual comparisons of a standard 4-12-4 mixture, made from nitrate of soda, 20 per cent superphosphate and muriate of potash, used at the rate of 200 pounds per acre in the hill for corn, with 100 pounds of an 8-24-8 made by mixing nitrophoska and 20 per cent superphosphate, and with 67 pounds of a 12-36-12 made by mixing ammonium phosphate, calurea, and muriate of potash. The yields obtained varied less than a bushel per acre, which is not considered significant.

In still another experiment 400 pounds per acre of a 3-12-4 made from nitrate of soda, 20 per cent superphosphate and muriate of potash applied in the hill for corn, has been compared with one-third as much of a 9-36-12 made from ammonium phosphate and muriate of potash.

The purpose in using such heavy application in the hill was to determine whether one fertilizer would be more damaging to germination and stand than the other, also to get the effect on yield. The work has covered four years, with two comparisons in each year. The results have shown no significant difference in the stands obtained, and an average difference in yield of less than three-fourths of a bushel per acre.

In another test, however, different rates of fertilizer were applied to corn, in the hill, with six different planters. None of the six planters was able to apply a 4-12-4 fertilizer at a rate greater than 200 pounds per acre without doing substantial damage to the stand.

COTTONSEED IN NEW HIGH

Cottonseed made new highs at Memphis during the week ending April 5. April trading up to \$37.25 late in the week, but bids were lowered a little Friday and Saturday with the market at the finish about unchanged from the previous week. Deliveries against April commitments have totaled 325 tons, so far originating in Tennessee, Mississippi, and Arkansas, and showing oil premiums in most instances some as high as 5 per cent, while some afterplanting seed originating in Tennessee brought a premium up to almost 9 per cent. The open interest is understood to not be as large as March, but is gradually increasing on selling originating with holders of cash seed contemplating deliveries and the buying seems to uniformly for the time being originate with local and outside oil mills. The steady acceptance of tenders by crush-

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ing interests have prevented any accumulation of seed by cash handlers, and their purchases are apparently entirely against a short interest maintained in the April and May futures.

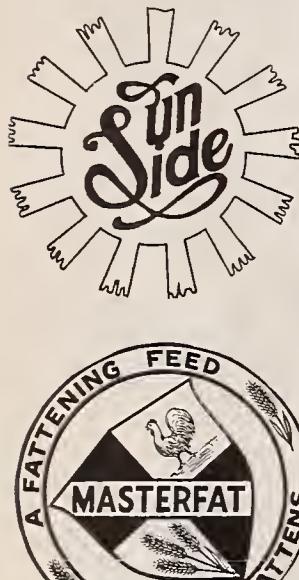
Cottonseed meal made new highs early in the month, but reacted partially on a resumption of hedge selling in rather large volume, but this selling was taken by the market easily and only on slight dips, and the close on April 5 it was steady to firm at prices averaging 25 cents down from the previous Saturday on the old crop months, while the new crop positions showed unchanged. Trade buying was maintained through in good volume but the buying was offset to some extent by steady hedging in the futures. The absorption of this hedge selling has originated mostly with cash handlers and some mill buying, against a slow seed movement and influenced somewhat by stronger grains, cotton, and stocks.

NEW FEED BRANDS

"SUN SIDE" for egg mash, growing mash, open-formula egg mash, egg mash with buttermilk, scratch grains, chick starter, and growing grains for poultry. P. J. Oesterling & Son, Inc., Butler, Pa. Filed January 23, 1930. Serial No. 295,132. Published March 4, 1930. Claims use since October, 1924.

"IDEAL SPECIAL HEAVY DUTY LOGGING RATION" for stock feed. Josey-Miller Company, Beaumont, Texas. Filed August 30, 1929. Serial No. 289,191. Published March 11, 1930. Claims use since July 1, 1924.

"CEN TEN" for dairy cow feed, sweet feed, baby-calf feed, beef fattener, swine protein supplement,



horse sweet feed, egg-laying mash, growing-chick mash, chick starter, baby-chick scratch, hen scratch. Central Farm Products Company, Waco, Texas. Filed December 9, 1929. Serial No. 293,406. Published April 1, 1930. Claims use since September 1, 1929.

"MASTERFAT" for poultry feed. Jay W. Wheeler, doing business as Los Angeles Grain & Feed Company, Los Angeles, Calif. Filed January 28, 1930. Serial No. 295,412. Published April 1, 1930. Claims use since January 2, 1929.

"HULMO" for cattle feed, namely, cottonseed meal. San Joaquin Cotton Oil Company, Los Angeles, Calif. Filed February 3, 1930. Serial No. 295,538. Published April 1, 1930. Claims use since December 31, 1929.

TRADEMARKS REGISTERED

268,141. Stock, cattle, and poultry feed. Missoula Feed & Grain Company, Missoula, Mont. Filed November 14, 1929. Serial No. 292,411. Published December 24, 1929. Registered March 11, 1930.

268,628. Feeds. Meridian Grain & Elevator Company, Meridian, Miss. Filed November 4, 1929. Serial No. 291,994. Published January 7, 1930. Registered March 18, 1930.

268,709. Livestock Feed. Schreiber Milling & Grain Company, St. Joseph, Mo. Filed April 8, 1929. Serial No. 282,065. Published January 7, 1930. Registered March 18, 1930.

268,710. Poultry Feed. Schreiber Milling & Grain Company, St. Joseph, Mo. Filed April 8, 1929. Serial No. 282,064. Published January 7, 1930. Registered March 18, 1930.

268,711. Livestock and Poultry Feed. Schreiber Milling & Grain Company, St. Joseph, Mo. Filed April 8, 1929. Serial No. 282,062. Published January 7, 1930. Registered March 18, 1930.

269,158. Animal feed in the form of cracked corn.

Ralston Purina Company, St. Louis, Mo. Filed June 17, 1929. Serial No. 285,688. Published January 14, 1930. Registered March 25, 1930.

BEANS

CHEAP DRIED BEANS: CALVIN COOLIDGE'S AMMUNITION

Westbrook Pegler, Chicago newspaper writer, recalls the following incident concerning Mr. Coolidge:

"One day in the Black Hills of Dakota, the then President Coolidge called for a shotgun, and amazed the newspaper detail by exploding 20 out of 23 clay pigeons. There was no little surprise at this score, and one of the writers told him so.

"'O, yes,' he said, 'I could always shoot fairly well. I learned it when I was a boy. I had a muzzle loading gun and plenty of powder, but shot was too expensive. So I used to load her up with dried beans and toss the cans up in the air and shoot them full of holes.'

FOREIGN DRY BEAN SITUATION

Present information on foreign dry beans indicates ample supplies in foreign markets. Little definite information is available on domestic stocks at present or the demand situation generally. Supplies of new crop beans already in the United States, including production and imports to date, are well above average for beans as a whole, and fully average for pea beans. Lack of carryover at the beginning of the season may have been sufficient to reduce the total supply to near the average amount, and a general upward trend in annual consumption noted in recent years may help to move the supply.

CAROB PRODUCTION

Carob beans also known as "St. John's Bread," algaroba beans and locust pods, grow in various regions of southern Italy, but by far the greater part of the total production comes from Sicily, according to information received from L. G. Dreyfus, Jr., American consul in Naples. The year 1929 showed a great increase in the production of carob beans amounting to 76,280 metric tons, as compared with 54,540 tons in 1928, 54,630 tons in 1927, and an average annual production of 41,926 tons for the five years from 1923 to 1927. This increase was due almost entirely to a greater production in Sicily which amounted in 1929 to 70,080 tons, against 41,030 tons in 1928 and 41,490 tons in 1927 and an average of 28,858 tons for the years 1923-1927.

Carob beans are used mainly as a fodder. A certain quantity are also used for extracting syrup from the pods for use in making candy lozenges, which are in demand in Sicily for relieving throat irritations. In the Province of Catania, it is reported that the syrup is used as a substitute for licorice juice. The great bulk of Italy's production of carob beans are consumed in that country and it is estimated that approximately only one-seventh to one-sixth of the crop is exported.

THE FARM BOARD'S BEAN MARKETING PROGRAM

In accordance with powers granted to it under the Agricultural Marketing Act and at the request of co-operative bean marketing associations, the Federal Farm Board has been studying the bean marketing situation in the United States for the purpose of determining whether or not there is need for further organization in this field. Some facts brought out by the study are as follows:

Total production of beans in the principal commercial producing states has increased from 12,877,000 bushels in 1922 to 19,928,000 bushels in 1925 and 16,598,000 bushels in 1928. New York and Michigan are the largest producers of the pea bean, large white yellow eye, white kidney and red kidney, while Montana, Idaho and Wyoming produce mostly the Great Northern and red Mexican bean. Colorado and New Mexico produce over 90 per cent pinto beans and California produces practically all the limas, black eyes, pinks, cranberry, and a large percentage of small whites and red Mexicans.

It is estimated that there are approximately 40 farmer-owned associations of various types engaged in marketing beans. Of the total number, six are regional pooling associations, two are federations of local associations, and the balance are independent local associations. Some of these handle only beans.

Others handle beans, grain, and other farm products. Twenty-six of these associations operate in the pea and kidney bean sections of Michigan, Illinois, and New York; six operate in the states of Idaho, Montana, and Wyoming where the Great Northern and red Mexican varieties dominate; six in Colorado and New Mexico where the pinto variety is most common, and two in California where limas and baby limas, pinks, black eyes, cranberry and other varieties are produced.

The farmer-owned associations now existent in all areas outside of California handle approximately 16 per cent of the total production and 25 per cent of the total crop of all varieties marketed. Associations in the New York-Michigan district handle approximately 20 per cent of the total production and about 30 per cent of the crop marketed of that district; Montana, Idaho, Wyoming districts handle approximately 23 per cent of the crop marketed of that district; associations in the pinto sections of Colorado and Wyoming now handle less than 2 per cent of the production and less than 10 per cent of the crop marketed of that type of beans; lima bean associations in California handle approximately 60 per cent of the tonnage marketed while associations handling other California varieties handle only a very small per cent of the tonnage marketed.

Some of the salient facts of the existing situation may be summed up as follows:

1. Co-operative bean marketing associations in nearly all areas need to be strengthened; their membership and volume of business increased so that they may become more important factors in marketing the bean crops in their respective areas. Only in this way can economies be effected, market practices be improved and some degree of market price stabilization effected.

2. There is direct competition between co-operatives operating in the same area and also between two areas such as the New York-Michigan and Montana-Idaho-Wyoming sections, and indirect competition between all types of beans. This can only be eliminated by centralized selling merchandising.

3. There is at present no co-ordinated action by co-operatives toward developing more effective distribution of the several varieties grown nor for increasing consumption through advertising, and other practical means.

4. A number of the associations now operating are in need of additional capital both for acquiring necessary physical facilities and for current marketing purposes.

5. With widely scattered associations, many of which are relatively small, it would be difficult for bean growers in the several areas to obtain to the fullest extent the benefits of the agricultural marketing act through the Federal Farm Board.

With these facts in mind, the farm board has suggested to the farmer-owned bean marketing associations of the several districts that they form a national bean marketing association, qualifying under the Agricultural Marketing Act, which (1) Will undertake the co-ordination of activities of all existing co-operative bean marketing associations, will aid and strengthen them and encourage the formation of new associations wherever such associations are needed. (2) Will provide central selling and distributing facilities which will eliminate sales competition between present associations; provide physical facilities at such points where they can not conveniently be provided by existing co-operatives; which can effectively advertise and merchandise all types of beans produced in the several areas and which can, depending upon its volume, act toward accomplishing greater market price stabilization. And (3) provide a strong agency through which the farm board may function in making available to bean growers the benefits of the marketing act.

RYE MARKET FIRM

Rye markets have recently developed independent firmness. The advance in wheat, together with a good domestic mill inquiry for rye, has been principally responsible for an advance in prices. Reports of increased utilization in Germany which were expected to reduce stocks in that market had a strengthening influence although no export inquiry has yet developed for United States rye. Only about 72,000 bushels of rye were exported during April, according to preliminary estimates. On April 9 No. 2 rye was quoted at Minneapolis at 70-75½c per bushel. This compares with quotations of 62-66½c a month ago.

The corn market has strengthened along with wheat but influenced also by a continued active demand for the relatively small supplies. Receipts of corn at the principal primary markets since the first of November have been about 20 per cent less than for the corresponding period last year and have been only about sufficient for current trade requirements. Market stocks have been decreasing slowly since the middle of March and stocks in store in the principal markets April 5 totaled only about 25,000,000 bushels compared with around 37,000,000 bushels a year ago.

Feeders, industries, shippers and elevator interests have all been fairly active buyers of corn and prices at this writing have advanced to a point 10 cents above the low level reached in February. While domestic buyers are furnishing the principal outlet for offerings moderate amounts of white corn have recently been reported sold for export to Mexico from the southwestern markets. On April 9 No. 3 mixed corn was quoted at Chicago at 81½-82½c and No. 3 Yellow at 83-84½c. No. 3 Yellow was quoted at Kansas City at 80-81½c and at Minneapolis at 76½-79½c per bushel.

United States farmers have expressed an intention of increasing corn acreage 2.8 per cent this spring. The intended increase is quite evenly divided among the various states. The total acreages intended in the various parts of the country appear the same as were harvested in 1928, except that they are lower in the eastern corn belt where the 1928 corn acreage was increased as a result of winter killing of wheat. The acreage planned may be larger or smaller than these intentions reports due to weather conditions or other factors which may change farmers' plans. Corn planting has been retarded by cold weather in the corn belt. Early planted varieties are reported coming up to poor stands in Oklahoma where dry and cold weather has been unfavorable for the crop. Planting has progressed as far northward as Arkansas, the Carolinas and Tennessee. Preparation of seed beds has made seasonal progress in the corn belt.

The oats market has strengthened along with corn. Offerings at the principal markets continue of only moderate volume and have been slightly below trade needs with the result that market stocks have been reduced slowly since the middle of March. An increase of 2.5 per cent in oats acreage this season compared with that harvested in 1929 is indicated by farmers reported intentions to plant oats. No important shifts are indicated although reductions were reported intended in North and South Dakota, Minnesota and Nebraska. Prices have advanced slightly during the past month and on April 9 No. 3 white oats were quoted in Chicago at 42½-44½c and at Minneapolis at 40½-41½c.

Barley markets have not changed materially during the past month. Malting grades continue in good demand but feed barley sells slowly at most markets, and offerings are about equal to trade needs. Market stocks have shown some slight reduction since the middle of March but slightly over 9,000,000 bushels of barley remain in store at the principal markets, or only slightly less than at this time last season.

Only a slight increase in barley acreage was indicated by farmers' reported intentions. The increase was practically all in the western states, exclusive of California. Last year's acreage will be maintained in Minnesota and North Dakota, accord-

ing to these reports, while the acreage in South Dakota will be increased about 3 per cent and in Nebraska about 10 per cent over that harvested in 1929.

REPORTS HUNGARY'S GRAIN PRODUCTION

Dr. C. O. Swanson, head of the department of milling industry at the Kansas State Agricultural College, has been appointed by the bureau of agricultural economics to make a study of the utilization of American wheats in European countries. He has been granted a leave of absence from his present post between May 1 and September 30.

A telegram requesting that he accept the appointment said that the Federal Farm Board had asked the bureau of agricultural economics to make a study of milling and baking qualities of wheats used in Europe. The program calls for the services of a man possessing technical training and experience, according to the telegram, and Dr. Swanson was recommended for the assignment.

His work at the Kansas college has given him a place of eminence in grain and milling circles. Under his leadership a plant for milling research and study second to none in the world has been



DR. C. O. SWANSON

built up. His research work has been chiefly in the following fields: wheat and flour, mill fumigants and by-products, the loss of nitrogen and organic matter in cultivated soils, alfalfa sorghums, silage and the nutrition of swine.

REPORTS ON HUNGARY'S GRAIN PRODUCTION

American producers of pork products are faced with increasing competition from Hungarian producers in the markets of central Europe, says Louis G. Michael, United States Department of Agriculture economist, who is completing a series of reports based on a survey of European agriculture for the Bureau of Agricultural Economics.

"Hungary," Mr. Michael says, is a corn-growing country and a potential producer of pork and pork products that may compete with the United States, in south central Europe at least."

Discussing other factors of competition between United States and Hungarian farm products on European markets, Mr. Michael points out that on the wheat and flour markets, Hungary is now competing with the United States in Austria and Czechoslovakia. He predicts, however, that in the future, surpluses of rye, barley, corn, and oats exportable from Hungary will probably be smaller than before the World War on account of increased domestic use as feedingstuffs in the livestock industries.

"Hungary," Mr. Michael reports, "had nearly 500,000 more acres under plow in 1927 than before the World War. This was at the expense of meadows, pastures and forests. In 1928, cereal acreage was 104 per cent of the pre-war average; potatoes, 105.8 per cent and sugar beets, 125.2 per cent. On the other hand, cattle were 90.5 per cent of the 1911 census numbers, swine, 82.8 per cent, and sheep 66.6 per cent. Only horses increased in number and show several thousand head more than before the World War.

"Wheat production in Hungary in recent years has been greater than before the World War, but since the war the flour-milling industry has been permanently crippled because of governmental regulation and heavy taxation, and some of the large mills have been dismantled. Since the World War, Hungary has been exporting the maximum volume of wheat possible and has retained only the smallest quantity that would maintain the population.

TRADE NOTES

Among the modern merchandising helps offered by the Warren-Teed Seed Company of 526 West 18th Street, Chicago, are dealer helps. Inadvertently these were listed as "cleaner helps" in the last issue of the AMERICAN ELEVATOR AND GRAIN TRADE. We take this method of calling attention to the error because the dealer helps of the Warren-Teed Seed Company are an important part of their merchandising offer to dealers.

Many country elevators in the busy season get far behind the arriving truck loads of grain, because the operating units cannot handle the grain fast enough, although there may be plenty of room in the storage bins. The K. I. Willis Corporation of Moline, Ill., have an interesting story of how the movement of grain from sink to bins can be speeded up by the use of Superior Elevator Cup. The information will be sent to anyone asking for it.

S. H. Stoltzfus has rejoined the staff of the Wolf Company of Chambersburg, Pa., and will give his personal attention and services to mills in the Middle West. Mr. Stoltzfus previously was with the Wolf Company 17 years. He spent much of this time in its engineering department. He later enlarged his experience as the Kansas City representative of Nordyke & Marmon. He will have his headquarters at 2021 Pennsylvania Avenue, Kansas City, Mo.

Sprout Waldron & Co., of Muncy, Pa., have issued a new circular which describes in complete detail the New Monarch Uniflow Feed Mixer. The eight pages of the circular are replete with drawings and photographs which show clearly just how the vertical mixer works, how the various ingredients are mixed, and how the machine can be installed in various positions in the mill. As efficient feed mixing is important to every mill these days, millers generally will be interested in this circular which will be sent to anyone requesting it.

In a brochure replete with beauty and interest, Fairbanks, Morse & Co., of Chicago, announces the beginning of the second century of weighing and power machinery manufacture. The engravers' art has been enlisted to produce the illustrations in full color, and the printer has outdone himself in typography and make-up. One-hundred years of successful venture in invention, manufacture and merchandising is an event of which any firm can be proud. But prouder still must the company be of its reputation acquired through all those years. The writer was recently in the office of an engineer, a designer of elevators, with an international reputation. Our conversation was interrupted by a telephone call and I heard only the one side of the colloquy, which was something as follows: "Having trouble, eh . . . Well, I'm not surprised, if they had put in Fairbanks Morse equipment in the beginning they wouldn't have had any trouble." That, from an authority, after 100 years in a sharply competitive field, is something to be proud of indeed.

ASSOCIATIONS

CHANGE DATE OF ILLINOIS' CONVENTION

Owing to the fact that the Illinois Dental Society will meet in Decatur on May 13, 14, and 15, the original dates of the Illinois Grain Dealers Association convention have been set back a week to May 6 and 7.

While definite plans for the annual state convention have not been completed, Secretary W. E. Culbertson guarantees that the meeting will be worth the members' time. The state convention is the climax to the great number of district meetings which the Illinois association sponsors throughout the year.

Four of these district meetings have been held recently at Macomb, Chatsworth, Wenona, and Gilman. The purpose of these gatherings, which are more or less informal, is to stimulate a feeling of comradeship among the members of the association.

TEXAS GRAIN MEN TO MEET IN FORT WORTH

The thirty-third annual convention of the Texas Grain Dealers Association will be held in Fort Worth, May 26 and 27, according to an announcement by H. B. Dorsey, secretary of the association. The date was set behind those of the Kansas and Oklahoma grain conventions so that there would be no possible conflict for grain men who desire to attend more than one of the gatherings.

"I have been thinking for some time of the law that created the Federal Farm Board and more particularly of the policy of the board," said Secretary Dorsey in discussing plans for the convention program, "and it has occurred to me that we should hold a two-day educational session and invite the chairman, or a representative, from the Federal Farm Board, from certain banks, and from other associations. My idea is to inquire and decide whether or not we have performed useful service in the grain trade and whether or not a better marketing system than the one that has prevailed for a long time can be evolved. If it can, we feel sure that we would like to have a part in bettering conditions."

HAY ASSOCIATION PROMISES INTERESTING CONVENTION

The annual convention of the National Hay Association, which will be held in Columbus, Ohio, on July 7 and 8 at the Deshler-Wallack Hotel, will be of more than average interest, according to Fred K. Sale, secretary.

One of the features of the meeting will be a display of the different grades of hay, graded both according to the rules of the association and of the Federal Government. An afternoon will be spent at the experimental farm of the Ohio State University where different varieties of hay will be inspected in the field and discussions by university professors will be heard. Alfalfa and soy beans will also be discussed along with other matters including curing and cutting.

WASHINGTON FEED DEALERS HOLD MEETING

Problems vital to the feed industry were discussed at a meeting of the Feed Dealers Association of Washington, March 28, in the Tacoma Hotel with Fred Holm, the new district president, presiding.

The organization was somewhat divided on the tax problems now before the state advisory tax committee, the proposed sales tax coming in for a good deal of discussion. Many opposed this tax, while others declared it workable if all organizations were taxed alike, private and co-operative. As a relief for real estate taxation it also met some favor.

Strong opposition to the proposed tariff on oil meal and oil meal cake from the Orient was voiced by the organization, which, with similar groups in Oregon and California, is endeavoring to defeat this tariff item in congress. It has already passed the senate and is now before the conference committee of the two houses. Western feed dealers feel this is particularly detrimental to the coast states, as most of this meal comes here from the Orient and much

of it is used here. A \$6 a ton tariff on these products is proposed in the measure.

Representatives from the entire district, which includes the section from Kent to Olympia, were present and many matters of particular importance to the group were taken up. Floyd Oles is manager of the association.

HOLD IOWA DISTRICT MEETINGS

At the district meetings of the Western Grain Dealers Association in Sac City, Spencer, and Algona, Iowa, one of the most interesting subjects discussed was the matter of crop conditions. Reports were given on the basis of the conditions in each station represented throughout that territory.

There was a larger amount of corn back in the country this year than in 1929 and the amount of stock on feed, compared with the estimate given in the newspapers for this territory was very much lower. That is to say, where the Des Moines *Register* showed 46 per cent in cattle feeding compared with 1929, the report of every meeting indicated that in those territories that feeding was not quite as heavy as ordinary. Generally speaking, the stock of corn was much heavier than usual.

The subject of costs of handling grain was discussed and it was generally indicated by the men attending that the margin for handling grain was not as great as was necessary to meet increasing costs and diminishing volume at the stations.

The subjects of stored grain and elevator equipment was also covered. In addition, Mr. Carroll, Federal grain supervisor from Chicago, and G. A. Dabinett, grain supervisor from Cedar Rapids, Iowa, spoke. They covered, in a very complete and interesting method, the subject of grain grading in country and terminal markets.

A record attendance is expected for the annual convention of the Western Grain Dealers Association this year. It is to be held in Des Moines at the Fort Des Moines Hotel where the members convened two years ago.

CONVENTION CALENDAR

April 25-26:—California Hay, Grain & Feed Dealers Association meets in Los Angeles, Calif.

April 28-29:—Western Grain Dealers Association meets in Hotel Fort Des Moines, Des Moines, Iowa.

May 6-7:—Illinois Grain Dealers Association meets in the Hotel Orlando, Decatur, Ill.

May 20-21:—Kansas Grain Dealers Association meets in Hutchinson, Kan.

May 22-24:—American Feed Manufacturers Association meets in French Lick Springs Hotel, French Lick, Ind.

May 23-24:—Grain Dealers Association of Oklahoma meets in Enid, Okla.

May 26-27:—Texas Grain Dealers Association meets in Fort Worth, Texas.

May 27-29:—Pacific Coast Seedsman Association meets in Hotel Huntington, Pasadena, Calif.

June 16-17:—Montana Farmers & Independent Grain Dealers Association meets in Havre, Mont.

June 16-17:—Central Retail Feed Association meets in Schroeder Hotel, Milwaukee, Wis.

June 18:—Indiana Grain Dealers Association meets in Indianapolis, Ind.

June 19-29:—Ohio Grain, Mill & Feed Dealers Association meets in the Commodore Perry Hotel, Toledo, Ohio.

June 23-24:—Farm Seed Association of North America meets in King Edward Hotel, Toronto, Ont.

July 7-8:—National Hay Association meets in Columbus, Ohio.

October 12:—Terminal Grain Weighmaster Association meets in Hotel Sherman, Chicago, Ill.

October 13-15:—Grain and Feed Dealers National Association meets in Hotel Sherman, Chicago, Ill.

October 14:—Chief Grain Inspectors National Association meets in Hotel Sherman, Chicago, Ill.

Association Briefs

THE fifty-second annual convention of the Ohio Grain, Mill and Feed Dealers Association will be held June 19 and 20 at the Commodore Perry Hotel, Toledo, Secretary W. W. Cummings has announced.

FIFTY grain dealers from Nebraska met in Deshler recently and organized the South Central Nebraska Grain Dealers Association. E. J. Smiley of Topeka, Kan., and T. B. King of Central City, Neb., were the speakers.

HENRY C. WILSON, formerly a member of the transportation committee of the Grain and Feed Dealers National Association, has opened an office in Washington, D. C., for the general practice of law. He will specialize in practice before the Interstate Commerce Commission.

THE annual convention of the Oklahoma Grain Dealers Association will be held at Enid, Okla., May 23 and 24. The gathering will be held in connection with the Oklahoma Coal Dealers Association and the Southwest Shippers Advisory Board.

E. J. SMILEY, secretary of the Kansas Grain Dealers Association, conducted a group meeting in Salina, April 1, which was attended by members of the Salina Board of Trade.

THE regular monthly meeting of the Northwest Ohio Farmers Grain Dealers Association was held in Delta on April 7. The feature speaker was Charles Latchaw, secretary of the state organization, who discussed the farm board's program.

AT a meeting of the directors of the Indiana Grain Dealers Association in Indianapolis, April 4, it was decided to hold the mid-summer meeting of the organization in Indianapolis, June 18.

THE monthly dinner and business meeting of the Minneapolis Grain Shippers Association, April 3, at the Nicollet Hotel drew a little better than average attendance. Julius Hendel, who recently returned from a trip abroad, was the principal speaker, describing conditions in Europe as he saw them.

HURRAH, the conventions are coming! There are two more scheduled for this month and six for next. June, always a big convention month, will take care of six. July and August will have one each, while October has three. The nearest national gathering is the American Feed Manufacturers Association at French Lick, Ind., May 22 to 24.

THE exact dates of two state conventions have not been determined—that of the Iowa Farmer Elevator Managers Association, which will be held at Fort Dodge some time in June, and that of the New York State Hay & Grain Dealers Association to be held at Syracuse during August.

A "FOUR-IN-ONE" meeting will be held in Enid, Okla., on May 23 and 24 when the Grain Dealers Association of Oklahoma, the Oklahoma millers, the Oklahoma coal dealers, and the Southwest Advisory Board gather for a joint convention.

MORE than 80 grain dealers were in Salina on the evening of April 1 to attend a meeting conducted by E. J. Smiley, Topeka secretary of the Kansas Grain Dealers Association. The usual amount of "April fool" pranks were in order.

TRANSPORTATION

WABASH RATES JUSTIFIED

Among the decisions made public by the Interstate Commerce Commission recently, is the case docketed as No. 3372, involving grain rates over the Wabash Railroad to points in Michigan and Ohio.

Proposed rate schedules canceling the participation of the Detroit, Toledo & Ironton Railroad in rates on grain, grain products, and grain by-products from stations on the Wabash line east of the Mississippi River and west of Detroit, Mich., to Toledo, Ohio, and to Detroit, were found justified by the commission. The suspension order has been vacated.

LEGGE FORECASTS INCREASE IN MARKET CONGESTION

There is no hope for relief of congestion of wheat at terminal points within the next 60 days at least, it was stated in March by Chairman Legge, of the Federal Farm Board, in a letter to George F. Shafer, governor of North Dakota, made public by the farm board.

The tendency seems for the congestion to become worse rather than better, he said. There is a possibility that a general embargo on railroad shipments of grain to terminals may be imposed if the situation becomes much worse.

Mr. Legge attributed the situation to local conditions in other exporting countries, and the failure of domestic growers to co-operate with the board in reduction of acreage. Failure of the farmers to support the acreage curtailment program will result

in offsetting the results already attained by the stabilization corporation, he said.

The letter was in response to a telegram from Governor Shafer and was made public with his permission, it was stated. The letter follows in part:

"Dear Governor: Replying to your questions as to the basis of buying wheat after the congestion at terminals is relieved, this refers to a situation that is not in the picture at the present time, as there is no possible hope for relief in this matter during the next 60 days at least. The tendency seems for the congestion to become worse rather than better.

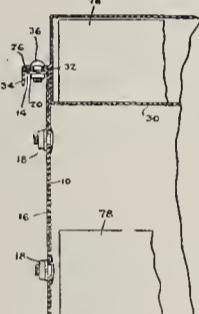
This is doubtless due to the situation in other wheat exporting countries—Australia, Argentina and Canada, where local conditions particularly financial, are compelling the liquidation of stocks on hand. In my judgment these would be liquidated at something under our level of prices, no matter to what basis our price level went. In other words, it represents a distressed condition."

GRAIN TRADE PATENTS

Bearing Date of February 18, 1930

Elevator for grain, etc. August H. Eckhardt and Henry F. Harloff, St. Paul, Minn., assignors to Eckhardt Manufacturing Company, St. Paul, Minn., a corporation. Filed March 23, 1929. No. 1,747,471. See cut.

Claim: An elevator for grain, comprising a trough consisting of at least two members placed together in longitudinal alignment and having outturned flanges on their upper sides, an outside angle plate fitting over the joint between said members, said angle plate having outturned flanges fitting underneath said first flanges, a U-shaped guide consisting of at least two members placed together in longi-

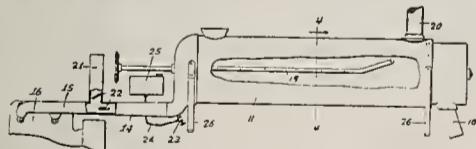


tudinal alignment and having outturned flanges fitting upon said first flanges, an inverted U-shaped cover consisting of at least two members placed together in longitudinal alignment and having outturned flanges fitting upon said last mentioned flanges, each of said sets of members being placed together in such manner that the joints of each set break joints with the joints of the other sets, and an endless conveyor in said trough having its upper stretch supported by said guide members, said conveyor including flights which engage the bottom of the trough for the lower stretch of the conveyor.

Bearing Date of February 25, 1930

Grain Drier. Patrick F. Normandeau, Ronan, Mont. Filed April 25, 1928. No. 1,748,519. See cut.

Claim: A grain dryer comprising a cylindrical body having intake and discharge ports arranged in the opposite ends thereof, a screw conveyor operatively mounted within the body, a jacket disposed entirely about the side walls of the body with its walls in spaced relation from the walls of said body, means for supplying heated air from the space between the body of the jacket, at the end thereof adjacent the



intake port, a discharge port for the jacket at the opposite end thereof, and a partition arranged at each side of the body for closing the space between the same and the jacket and adapted to cause the heated air to circulate at the lower side of said body, said partition terminating short of the discharge end of the body whereby to admit the heated air from the lower part of the body into the jacketed space about the upper part of the body.

Bearing Date of March 4, 1930

Process of Disinfecting Seeds and Composition Therefor. Max Engelmann, Wilmington, Del., assignor to E. I. du Pont de Nemours & Co., Wilmington, Del., a corporation of Delaware. Filed October 29, 1926. No. 1,749,575.

Claims: 7. A process for the disinfection of seeds, which comprises treating the seeds with a mixture of copper sulfate and an alkaline substance insufficient in amount to convert the copper sulfate entirely to the insoluble basic sulfate.

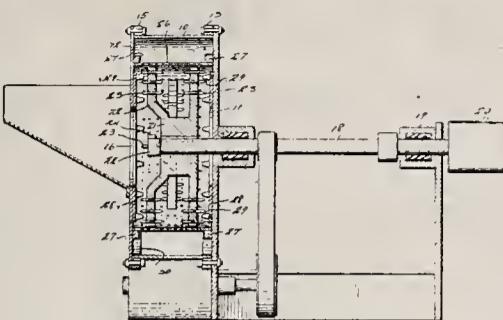
8. A process for the disinfection of seeds, which comprises treating the seeds with a dry, finely powdered mixture of copper sulfate and magnesium oxide, the amount of the latter being insufficient to convert the copper sulfate entirely to the insoluble basic sulfate.

Bearing Date of March 11, 1930

Feed Grinder. Herman E. Luebbers, Osmond, Neb. Filed November 10, 1928. No. 1,749,954. See cut.

Claim: A feed grinder including an outer drum, the

periphery of which has a discharge opening, a shaft entering one end of the drum and having thereon a plurality of substantially radial beater arms arranged in staggered relation, the opposite end of the drum having a central feed opening, a screen concentric to the shaft and disposed outward of the ends of the



arms and spaced from the periphery of the drum, and means for rotating the shaft, the arms on the shaft having laterally projecting studs and an end wall of the drum being provided with inwardly projecting studs coacting with the studs on the arms, each of said arms at its outer end being provided with a shoe and having teeth facing in the direction of rotation.

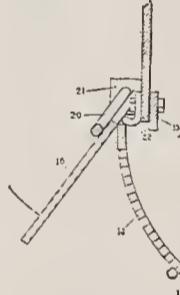
Apparatus for Grinding Grain into Crushed Malt and the like. Josef Schaefer, Frankfort-on-the-Main-Bockenheim, Germany, assignor, by mesne assignments, to Miag Muhlenbau und Industrie Aktiengesellschaft, Frankfort-on-the-Main, Germany, a corporation of Germany. Filed May 19, 1925, and in Czechoslovakia May 24, 1924. No. 1,749,925.

Claim: In an apparatus for grinding grain, the combination of a pair of bladed cutting rolls, the blades of which operate to cut the single grains longitudinally into halves, a sieve to which the products are fed from said cutting rolls, a pair of smooth rolls, at one end of said sieve and distanced a space a little less than the thickness of a halved grain, another sieve receiving the products from said smooth rolls, a second pair of bladed rolls to which particles are fed from the smooth rolls and having their blades rotated at different speeds so that said blades act more than once on every particle of the grain produced by said pair of smooth rolls, and means for diverting portions of the products from the first named sieve past said smooth rolls and on to the second named sieve.

Bearing Date of April 1, 1930

Feed Grinder. Charles D. Ammon and Elmer W. Wilcox, Lincoln, Neb., said Wilcox assignor to said Ammon. Filed January 29, 1929. No. 1,752,971. See cut.

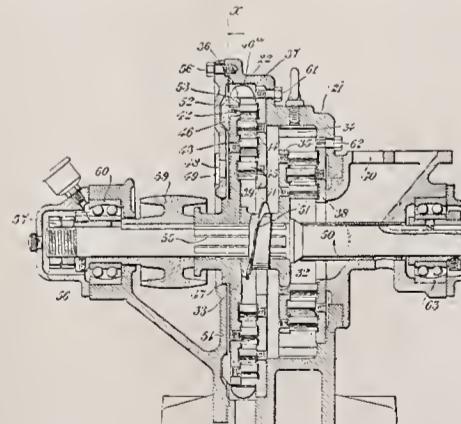
Claim: A grinder including a comminutor and a screen within a casing, said casing being provided



with an opening for the insertion and withdrawal of said screen, and a hinged closure for the opening of said casing, said closure being adapted to exert a leverage action on said screen during the closing movement thereof.

Grinding, Puverizing, or Disintegrating Mill. Walter Amelius Cloud, Chiswick, London, England. Filed June 14, 1926. No. 1,752,888. See cut.

Claim: A grinding, pulverizing or disintegrating mill including co-operating pairs of discs, one disc of each pair being fixed and the other disc of each pair being

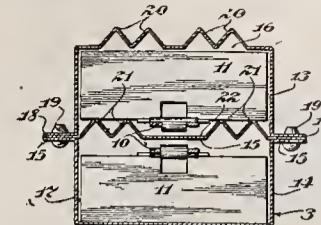


rotary co-operating pins on the discs of each pair for treating the material propeller blades attached to one of the rotary discs, and a fan blade to assist in directing material from the center of the machine outwardly to said pins.

Elevator Leg. Robert J. Owens and John L. Owens, Minneapolis, Minn. Filed April 20, 1929. No. 1,752,612. See cut.

Claim: A device of the class described comprising a casing, and a sheet metal partition dividing the casing into upper and lower compartments and having formed therein longitudinally extended corrugations affording rails on which the flights of an endless con-

veyor travel during their return movement, said rails being laterally spaced to leave a passageway for the



belt of the conveyor, and of such height as to hold said belt out of contact with the partition.

GRAIN WORLD

SPAIN'S GRAIN ACREAGE

The area sown to wheat in Spain for the 1930 harvest is estimated at 10,531,000 acres, according to a cable to the Foreign Service of the Bureau of Agricultural Economics from the International Institute of Agriculture. This estimate is an increase of 0.5 per cent over the 1929 area and is the largest since 1927. The rye area is placed at 1,446,000 acres, a decrease of 11.5 per cent below 1929. The barley area is estimated at 4,390,000 acres, which is a decrease of 0.8 per cent from the area sown in 1929, and the smallest acreage since 1924. The oats area is placed at 1,840,000 acres, which is an increase of 8.2 per cent over the 1929 sowings, but is with that exception the smallest acreage since 1925.

WHEAT ACREAGE FOR 1930

The acreage sown to wheat in 13 countries from which reports have been received stands unchanged at 120,294,000 acres as compared with 120,991,000 acres in the same countries in 1929. The intention-to-plant report as released by the Crop Reporting Board of the Department of Agriculture indicates that farmers are planning to decrease the acreage of Spring wheat by 3.7 per cent. The reports indicate that the indicated decrease is confined to a 15 per cent decrease in the acreage of Durum wheat with no material change in the total acreage of other Spring wheat; the acreage reduction of about 5 per cent in Hard Red Spring wheat now planned in Montana, Idaho, Minnesota and some other states, being offset by small increases elsewhere.

GERMAN DUTY INCREASES

The German Reichstag adopted bills to further increase agricultural duties, effective March 29, 1930, according to a cablegram from Commercial Attaché H. Lawrence Groves, Berlin, received at the Department of Commerce. The following increases of duties will take place (all in Reichsmarks per 100 kilos):

Wheat, from 9.50 to 12, and oats, from 8 to 12; fodder barley from 5 to 10, permitting hog fatteners to import fodder barley at the rate of two Reichsmarks per 100 kilos if the barley is fed together with rye; the compensatory duty on wheat flour above one and one-half of the wheat rate from 4.23 Reichsmarks to 5.25 Reichsmarks, thus increasing the duty on wheat flour from 18.50 to 23.25 Reichsmarks; malt from one and one-third of the barley rate plus the compensatory duty of 6 Reichsmarks to one and one-half barley rate plus eight Reichsmarks, i. e., from 18 to 21.50 Reichsmarks; bran except wheat bran will be subject to a rate of duty amounting to one and one-half of the rye rate, i.e., 13.50, while at present it is duty free; wheat bran will remain duty free; and the duty on refined sugar will be increased from 25 to 32. The general duty on potatoes will also be increased.

A corn monopoly, giving exclusive distribution of imported and domestic corn to the Reichsmästelle, without changing the present duty of 2.50 Reichsmarks per 100 kilos will also be established, effective April 1, 1930.

EXPORTS OF MALT AND HOPS

In 1929, the Czechoslovak exports of malt amounted to approximately 160,000 tons and, as usual, the greater portion of this amount went to Germany, according to a report from Sam E. Woods, Assistant Trade Commissioner in Prague. The exports to the countries of Central and South America during the past year were about 30,000 tons. In December, just before the increase in the German duties on malt became effective, 17,000 tons were shipped to that country. The increase in the German duties on malt will be a serious blow to the Czechoslovak manufacturers as it is understood that the German importers have canceled all future orders.

REPETITION of the large production of Red Clover and Alsike Clover seed is not expected this year, while maintenance of Alfalfa seed acreage and curtailment of Sweet Clover seed acreage is suggested in the Department of Agriculture outlook report for the balance of 1930.

ELEVATOR AND
GRAIN NEWS

OHIO AND MICHIGAN

The Hardin (Sidney p. o., Ohio) Grain Company has installed a roller bearing sheller in its plant.

Walter Elliott is improving his elevator at Holmesville, Ohio, with new elevating equipment.

Aungst Bros. are planning to reorganize their company at Archbold, Ohio, and operate as Aungst Bros. Company.

The North Auburn (Ohio) Equity Exchange Company has improved its equipment with an automatic scale, a separator, and other machinery.

A. McDougal and J. F. Sehringer have sold the Plymouth (Ohio) Elevator Company and have purchased Freedley Bros.' plant at Carrothers. They plan to overhaul the elevator and install a feed grinder.

The Paddock Hodge Company (grain), Toledo, Ohio, dissolved recently, with the retirement of Fred O. Paddock. The old Lake Shore B Elevator which is leased from the New York Central Railroad is being torn down.

EASTERN

Runge & Co. has been recently formed at Baltimore, Md., to deal in grain, hay and feed.

The Schwartz Grain Company, New York, N. Y., has taken over the business of B. F. Schwartz & Co., Inc.

The governor of Massachusetts has recommended the establishing of a state grain elevator at South Boston, legislation on which is now pending.

The Wilder Grain Company, Lowell, Mass., has been incorporated with a capital of \$35,000. Incorporators are Wesley M. Wilder and Bertha M. Wilder.

The Torrance-Vare Company has been incorporated to operate at Lynn, Mass., as grain, feed, and flour dealers. Frederic W. Spearin, of Marblehead, is president.

The Byrne-Hayes bill pending in the New York legislature calls for an appropriation of \$1,850,000 for the erection of a grain elevator at the barge canal terminal as part of the Albany Port development.

MINNESOTA AND WISCONSIN

Zellmer & Balfe have bought the R. G. Murphy elevator at Kilkenny, Minn.

J. L. Kearns Grain Company has closed its elevator at Browerville, Minn., until June 1.

The Farmers Elevator Company, De Graff, Minn., plans to rebuild its elevator which was destroyed early in the year.

The business of the Farmers Grain & Fuel Company at Wabasso, Minn., has been taken over by George Franta & Co.

The Farmers & Merchants Supply Company, Minneota, Minn., is considering the purchase of the Dahl Grain Company's elevator.

The Farmers Co-operative Company, of Union Grove, Wis., has increased its capital stock to \$40,000. John Kemper is president.

The Northern Hay & Grain Company has purchased the Oneida Grain Company at Rhinelander, Wis. Oscar C. Nelson is president.

The old Great Western elevator at Ulen, Minn., is being torn down by the Ulen Grain & Fuel Company, which has owned it for the past several years.

A movement is being promoted for re-organizing the Farmers Milling & Elevator Company at Ellendale, Minn., under a co-operative basis so that it may co-operate with the Federal Farm Board.

The Hubbard-Palmer elevator at Dundee, Minn., operated for many years by A. R. Schmidt, has been taken over by the Farmers Co-operative Elevator Association. William Jans will be in charge.

The Donahue-Stratton Company, which leases the large Chicago & North Western elevator in the Kinnickinnic Basin in Bay View (Milwaukee) Wis., announces that the capacity of the house will be increased from 1,500,000 to 3,500,000 bushels. The new improvement will cost approximately \$700,000.

The elevator of the Amber Milling Company, Rush City, Minn., has been equipped to permit mixing and unloading at the same time. Several purifiers and a 150-horsepower motor have been

installed. A new platform has also been built which will permit seven cars to be loaded at one time.

The Great Northern Railway Company, St. Paul, Minn., has let contract to Burrell Engineering Company, Chicago, Ill., for a 3,000,000-bushel addition to its grain storage unit at St. Louis Bay, Superior, Wis.

The Farmers Union Terminal Association, St. Paul, Minn., announces plans for the building of a 1,000,000-bushel addition to its elevator. The new unit will be of concrete construction, with a marine leg for loading grain into river barges.

The Harland Flour & Feed Company, Minneapolis, Minn., is building a grain elevator and feed mill at Aitkin, Minn. The Harland company has recently purchased the Lake Region Flour, Feed & Produce Company which it has merged with its business.

The Cargill Grain Company is building a dock at Elevator M, East End, Superior, Wis., which will cost approximately \$25,000. Barnett & Record Marine Engineering Company is in charge of construction. Edwin McManus is superintendent of the elevator company.

The grain elevator of the Kiel (Wis.) Mercantile Association has been turned over to a creditors' committee until a re-organization of the company is effected. The committee, which will operate the elevator, consists of O. C. Heidemann, Erdman Reichert, and Fred Voland.

THE DAKOTAS

The Fordville (N. D.) Farmers Elevator Company will rebuild its plant which recently burned.

The Hoven (S. D.) Equity Exchange has improved its plant with new distributors and spouting.

The Farmers Elevator Company at Deering, N. D., has equipped its plant with new machinery, motors, and wiring.

The Osborn-McMillan Elevator Company has closed its houses at Bordulac and at Dover (Sykeson p. o.), N. D., for the season.

New equipment, consisting of a dump, scale, cleaner, and motor have been installed in Fred Allen's elevator at Deering, N. D.

The Plankinton (S. D.) Co-operative Elevator Company has been incorporated with a capital of \$25,000. Incorporators are L. J. Larson, C. A. Woods, and H. H. Rake.

The Farmers Elevator Company, whose elevator at Clear Lake, S. D., burned recently, is continuing business in temporary quarters at the Hagna Lumber Company. A new elevator will be built in time to receive the coming crop.

The Tri-State Milling Company plans to start construction work May 1 on a new grain elevator at Belle Fourche, S. D. The house will be 40 by 125 feet and will be put up by Horner & Wyatt, construction engineers at Kansas City, Mo.

The Western Lumber & Grain Company, Rhame, N. D., will start work soon on a new elevator to replace its house which was recently destroyed by fire. The elevators of the Farmers Equity Union and the Columbia Elevator Company were destroyed in the same fire. These companies, it is thought, may also rebuild their plants.

INDIANA

The Dayton (Ind.) Grain Company has increased its capital stock \$10,000.

The elevator at St. Bernice, which has been closed for some time, has been purchased by Mort Helt.

Martin Cutsinger & Co., Shelbyville, plans to rebuild shortly its grain elevator which recently burned.

The McComas & Randall Grain Company at Nora (Indianapolis p. o.), has been taken over by H. E. Dawson.

The Amo (Ind.) Mill & Elevator Company, with headquarters at Indianapolis, has filed papers for dissolution of the company.

The Fuhrer-Ford Milling Company, Mt. Vernon, has let contract to Polk-Genung-Polk Company, Ft. Branch, for the construction of five concrete storage tanks of a total capacity of 50,000 bushels. The

new concrete and steel tanks will supplement the company's two steel tanks which are inadequate to meet its present needs.

The Milroy (Ind.) Milling Company plans to build a new grain elevator and feed mill on the site of its flour mill which burned last fall.

The Goodrich Bros. Company, Winchester, has re-organized its company under the name of Goodrich Bros. Company, Inc., and has increased its capital stock from \$350,000 to \$700,000.

Campbell Bros. recently sold their grain elevator at Greencastle to the Putnam County Farm Bureau and have moved their grain and feed business to another location in Greencastle.

John H. Shine & Co. is operating as the Farmers & Merchants Exchange the business of the Borgerding Grain Company which it recently bought at New Albany. The capacity of the elevator is 40,000 bushels.

SOUTHERN AND SOUTHWESTERN

Boerstler Bros. are planning to build a small corn elevator at Henryetta, Okla.

The Uhlmann Grain Company has opened a branch office at Ponca City, Okla.

The Western Grain Company, Birmingham, Ala., is building a new grain bin which will cost \$6,000.

The Shepherd Construction Company, Dalhart, Texas, plans to build a \$75,000 grain elevator at Lark.

The Oklahoma Wheat Pool Elevator Association plans to build an elevator during the year at Clovis, N. M.

The Fort Worth (Texas) Elevators, controlled by J. Perry Burrus interests, are building a 750,000-bushel elevator.

J. D. White, formerly of White Bros., grocers, has opened a grain, feed, and flour business at Lexington, Tenn.

In connection with its line of country elevators, the A. P. Borger Grain Company has opened an office at Borger, Texas.

L. R. Hamm has bought the Henrietta (Texas) elevator from its former owner, H. H. Johnson. Grain and feed will be handled.

The Farmers Elevator Company is completing its new house at Dimmitt, Texas. The plant will have a total capacity of 50,000 bushels.

Work is progressing on J. R. Anderson's 30,000-bushel elevator, at Perryton, Texas, which will be completed in time for the coming crop.

The 750,000-bushel storage addition which the Kimbell Milling Company is building at Fort Worth, Texas, will be completed in time for the new crop.

The Farmers Co-operative Association, Mountain View, Okla., is building a new concrete office and warehouse to replace the building which burned last winter.

The Wichita (Wichita Falls, Texas) Mill & Elevator Company has let contract for the construction of a new grain storage unit which will cost over \$200,000.

Plans are under way for the construction of a 500,000-bushel grain elevator, at Helena, Ark., to be operated in connection with the Government barge line service.

B. C. Allan, director of the Port Commission at Houston, Texas, has let contract to the Folwell Engineering Company, Chicago, for the construction of a \$1,500,000 grain elevator.

The old Farmers elevator, owned by the B. & O. Cash Store Corporation, at Temple, Okla., is being remodeled to handle the coming harvest. Large storage rooms and bins will be erected.

Chalmers & Borton have been awarded contract for the construction of the 125,000-bushel concrete elevator which Riffe Bros. are building at Goodwell, Okla. The new structure will be completed by May 15.

The Lone Star Elevators, Fort Worth, Texas, have recently been incorporated with a capital of \$250,000. They will complete their new 750,000-bushel storage unit in time for the new crop. The company is a subsidiary of the Burrus Mill & Elevator Company of which J. Perry Burrus is president.

The wheat growers of Bovina, Texas, have pledged over \$6,000 toward the building of an ele-

vator. They plan to raise about \$9,000 and secure additional funds from the Federal Farm Board. The new house will cost about \$13,000. The Oklahoma Wheat Pool is sponsoring the project.

The Castro County Grain Company plans to build a 70,000-bushel grain elevator at Dimmitt, Texas. The Kearns Grain Company, which controls the company, is also building a 40,000-bushel elevator at Dawn.

The Ponca City (Okla.) Milling Company has let contract to Jones-Hettelsater Construction Company for the erection of a 326,000-bushel grain storage unit. The new addition will bring the capacity of the plant up to 550,000 bushels.

The Farmers Co-operative Association, Alva, Okla., will complete some time this month its new 30,000-bushel elevator, which will be equipped with a drier and a dust collector. The house replaces the one which burned last winter.

The Haney (Canyon p. o., Texas), (Texas) Grain Company, which has recently been incorporated with a capital of \$12,000, plans to build a 22,000-bushel grain elevator. Harry Kearnes, of the Kearnes Grain & Seed Company, Amarillo, Texas, is one of the principals of the new concern.

The Union Equity Co-operative Exchange will build a 100,000-bushel elevator at Enid, Okla. Contract has been let to the Roberts Construction Company. The building will be of wood and sheet metal construction. Work will start on the new structure as soon as a site is secured.

The Diamond Mill & Elevator Company, of Sherman, Texas, announces that it has let contract for 500,000 bushels additional storage capacity which will bring its total elevator and warehouse capacity up to 1,300,000 bushels. The new addition will cost about \$60,000. Jones-Hettelsater Construction Company, Kansas City, are the contractors.

A. P. Borger announces that he will build a 1,000,000-bushel grain terminal elevator at Amarillo, Texas, and 15 smaller elevators on the Santa Fe and Rock Island lines in the Panhandle district. The smaller elevators will serve as feeders to the terminal. The plant at Amarillo is to be completed by August 1. The cost of the chain of elevators is estimated at \$1,500,000.

MISSOURI, KANSAS AND NEBRASKA

Demers & Son are building a small elevator at Sunol, Neb.

A 250,000-bushel terminal elevator and alfalfa mill may be built at Syracuse, Kan.

The Collingwood Grain Company has bought the George Gano elevator at Manter, Kan.

The Collingwood Grain Company, of Hutchinson, Kan., is building an elevator at Ingalls.

Herman Torbeck has bought the business of the Farmers Grain Company at Johnson, Neb.

An overhead traveling electric truck dump has been installed in the A. B. Wilson elevator at Paul, Neb.

The Veninga Newell Grain Company, of St. Louis, Mo., announces its retirement from the grain business.

The Thompson Grain Company has repaired its elevator at Gresham, Neb., and installed new equipment.

The elevator of the Farmers Union Co-operative Association, Centralia, Kan., has been covered with metal.

The Farmers Elevator has replaced the gas engine in its plant at Dunbar, Neb., with two large motors.

The Crittenden Grain Company has repaired the damages done to its plant at Tamora, Neb., by a fire in February.

The Barnard-Dunn Grain Company's business at Holton, Kan., has been sold to the Bernard Mill & Coal Company.

The Ingalls (Kan.) Co-operative Grain Company is operating the C. S. Laird elevator which it has recently purchased.

The elevator of the Fairmont Grain Company at Ulysses, Neb., has been bought by the Farmers Grain & Supply Company.

The Farmers Equity Grain Company and the Farmers Union Co-operative Grain Association, Inland, Neb., plan to merge.

A head drive, driven by a Fairbanks Morse Motor, has been added to the equipment of the Farmers Elevator Company at Spearville, Kan.

The Oreapolis (La Platte p. o., Neb.) Grain Company has installed a Fairbanks Scale and electric truck dump and other equipment in its plant.

M. H. Bahling has taken over Mr. Poland's interest in the Farmers Grain Company at Cunningham, Kan., and is now sole owner of the concern.

The Wheat Farming Company, with offices in Topeka, Kan., has let contract to A. F. Roberts for the construction of a 55,000-bushel elevator at Page City. Three other elevators, including a 500,000-

bushel terminal, will be built within the next few months. Plainville, Weskan, Colby, Hays, and Salina are considered as possible locations.

The Farmers Exchange is building a new grain elevator at Olean, Mo. The house will be built on the site of the elevator which burned several years ago.

A co-operative exchange is being formed in Bucklin, Kan. A. E. Rudd is president of the new company which is capitalized at \$25,000. They plan to build an elevator.

Fred Klepser is building a new truck dump and installing a large scale in the Farmers Union Company's plant at Weeping Water, Neb., which he recently bought.

The Star Engineering Company has contract for the building of the 50,000-bushel elevator which the Farmers Co-operative Elevator Company is building at Alamota, Kan.

The Minneola (Kan.) Co-operative Exchange plans to build a 150,000-bushel grain elevator which will cost approximately \$50,000. Horner & Wyatt, Kansas City, Mo., are architects.

J. M. Grace has recently sold his interest in the elevator at Mascot, Neb., to Messrs. Swindell who will operate as the Swindell Grain Company. L. Swindell will continue as manager.

The Voda Co-operative Association is operating the elevator at Voda (Collyer p. o.), Kan., formerly owned by the Trego County Co-operative Association. Alfred Rensmeyer is manager.

The Winfield (Kan.) Flour Mills have let contract for a 75,000-bushel grain storage addition to its plant. The structure will be of steel and will be completed in time for the coming harvest.

With the purchase of the Wakefield (Kan.) Milling Company's plant, the Wakefield Farmers Co-operative Association has doubled its storage capacity. The plant will be conditioned to receive the new grain.

The Pittsburg (Kan.) Elevator Company is completing a fire-proof brick addition to its plant. The addition will be used for a grinding room. The company has also completed a 25,000-gallon molasses tank.

The Fowler (Kan.) Equity Exchange will let contract shortly for the construction of a 180,000-bushel grain elevator which will cost approximately \$40,000. Horner & Wyatt, Kansas City, Mo., are architects.

W. W. Lam has sold his interest in the Cox-Lam Grain & Supply Company, Iola, Kan., to his partner, Roy W. Cox. The firm, which operates elevators at Piqua, Moran, and Elsmore, will continue under the same name.

The Farmers West Central Grain Corporation, Lincoln, Neb., has been incorporated with a capital of \$1,000,000. The corporation is a subsidiary organization of the Farmers National Grain Corporation in Nebraska.

The Northwestern Railroad is waiting on the farm board policies before proceeding with the building of a 5,000,000-bushel grain elevator in Omaha or surrounding territory for the Cargill Commission Company.

Horner & Wyatt, Kansas City, Mo., are architects for the new 125,000-bushel grain elevator which the Co-operative Elevator & Supply Company plans to build at Meade, Kan. The new house will cost approximately \$45,000.

The Briscoe elevator at Tipton, Mo., recently purchased by C. H. Robertson, has been leased to William Veulman. Mr. Veulman will continue to operate his mill at Gravois Mills, and his son will operate the Tipton plant.

Victor Vratil bought the Farmers Grain & Supply Company's plant, at Ray, Kan., at a recent public auction. The house has been idle for several years. Mr. Vratil will use the property in connection with the operation of his farm.

The Citizens Lumber & Supply Company, of Chester, Neb., has purchased the elevators at Gilead, Hebron, and Deshler, formerly owned by the late George H. Hayes. The consideration was \$11,525. W. A. Fellers is president.

The Farmers Grain & Supply Company, of Dakota City, Neb., announces that April 26 is the closing date on which it will receive bids for the purchase of its elevator. Elmer H. Bierman is secretary of the company.

The Mid-West Grain Company at Omaha, Neb., has been recently dissolved, and L. L. Quinby, formerly with the company has been appointed manager of the West Central Co-operative Grain Company. John C. Ackerman, who was with the Mid-West Grain Company, has organized a new company under that name which he will operate as manager.

The Missouri Pacific Railroad plans to build a 2,000,000-bushel storage unit to its elevator at St. Louis, Mo., which is operated by the Continental Export Company. With the new unit, the plant will have a total storage capacity of 5,000,000 bushels.

The structure is to be completed by August 1. The mill storage units will also be increased.

The Farmers Union Co-operative Company, Orchard, Neb., has gone out of business and has turned its elevator over to L. A. Holbrook, F. L. Scherrer, and J. F. Johnson in payment of money loaned the company. The new owners will operate the elevator.

Chalmers & Borton have contract for building the 50,000-bushel elevator which the Farmers Co-operative Grain & Stock Company is to build at Haggard, Kan. Work will start at once on the new house which will be ready in time for the new crop. The old elevator is to be torn down to make way for the new.

Contract has been let to Jones-Hettelsater Construction Company for the erection of a 500,000-bushel concrete storage addition to the elevator of the Western Terminal Elevator Company at Hutchinson, Kan. The new unit will bring the company's total storage capacity up to 1,000,000 bushels.

WESTERN

The Farmers Elevator at Douglas, Wyo., is considering the erection of an additional elevator and flour mill.

The Farmers Union Elevator Company has recently repaired its plant at Wray, Colo. New equipment has also been installed.

The Cutter grain elevator and implement business at Yoder, Wyo., has been taken over by the Farmers Co-operative Marketing Association.

The Farmers Elevator at Gillette, Wyo., has been purchased by the Campbell County Farm Bureau. The company was formerly owned by Alex Maycock, W. R. Wright, R. G. Marquiss, and H. W. Hanson.

M. A. Penny and David L. Newman are operating as the Penny-Newman Grain Company the grain, feed, and seed business of the Kutner-Goldstein Company at Fresno, Calif., which they recently acquired.

The Judith Basin Grain Association, a grain marketing organization, has been formed at Lewistown, Mont., with a capital of \$50,000. Among the temporary directors are F. C. Naylor, E. A. Mack, and L. A. Stilson.

A group of alfalfa growers plan to build an alfalfa storage and cleaning plant at Malta, Mont. The plant will be a subsidiary of the Northern Montana Alfalfa Growers Association. Amos Kelly is local chairman.

The Chouteau County Farmers Company has been organized at Great Falls, Mont., with a capital of \$225,000. Among the principals are Chris O. Larson, of Big Sandy, and Fred H. Lembke, and George D. Gordon, of Fort Benton.

The Swift Grain Company, Lewistown, Mont., has agreed with the North Dakota-Montana Wheat Growers Association to have its 11 elevators in Montana available for the handling of the 1930 wheat crop of the association's members.

The Peninsula Grain Company has bought the Port Orchard (Wash.) Transfer Company which has been in business for 42 years. The grain company will equip the building for their retail business and offices. Their storage units and mill are located on the Central Wharf where their plant is centralized.

IOWA

A. C. Jurgensen has sold his elevator at Van Horne to O. Kaeberle, of Newhall.

The Conroy (Iowa) Lumber & Grain Company is building a 16 by 26-foot addition to its elevator.

Theodore Schilling has been granted a permit to move his elevator at Charles City to another site.

Thomas Connors has equipped his elevator at Imogene with an overhead traveling electric truck dump.

An electric overhead truck dump has been added to the equipment of the Clark Brown Grain Company at Mingo.

The Kelley (Iowa) Grain Company is operating the business of the Clark Brown Elevator Company which it bought.

Harry Keig, formerly associated with the West Union (Iowa) Co-operative Company, has bought an elevator and feed mill at St. Ansgar.

Plans are being considered for increasing the capacity of the Updike grain elevator at Council Bluffs from 3,100,000 bushels to 4,600,000 bushels.

The Farmers Co-operative Company has recently bought the Good Bros.' elevator at Riverton which has been operating as the Stubbs Grain Company.

A new Farmers Co-operative Elevator Company is being organized at Melvin. It will probably operate the plant of the old Farmers Elevator Company which recently sold its business at public auction.

With the retirement of Alva Humeston, the grain, feed, and seed business of Alva Humeston & Sons,

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Humeston, will be continued by his sons, Clarence and Charles, under the name of Humeston Bros. The business was founded in 1873.

A group of Polk City (Iowa) men has taken over and is operating the Farmers Grain Company at Polk City. J. L. Berigan, of Webster City, continues as manager.

B. M. Stoddard & Son have overhauled their elevator at Sloan, put in a concrete floor, repaired machinery, and installed new equipment. The house is also to be covered with metal.

The Mid-States Grain Company, Cedar Rapids, has been incorporated with a capital of \$25,000 to deal in grain, feed, hay, etc. Incorporators are C. D. Thorsen, Frank A. Byrnes, and John L. Schwab.

ILLINOIS

The Fielding Grain Company plans to build a new frame and steel elevator at Ogden.

The Farmers Elevator Company at Norris is reported to have gone out of business.

The Utica (Ill.) Elevator Company has equipped its plant with a 10-ton Fairbanks scale.

The El Paso Elevator Company has equipped its plant at Kappa with an electric truck dump.

A 10-ton Fairbanks scale has been added to the equipment of the Athens (Ill.) Farmers Elevator Company.

An electric truck dump has been added to the elevator equipment of Harry Tjardes at Risk (Forest p. o.), Ill.

The Farmers Elevator Company is completing the addition to its elevator at Mt. Carroll. The new part will be used to store machinery repairs.

The Brighton (Ill.) Farmers Co-operative Elevator Company is building an addition, 40 feet square, which will be used as a repair shop for its tractors and machinery.

The Keystone Elevator Company, Chicago, has been incorporated with a capital of \$330,000. Incorporators are Edward R. Bacon, A. C. Bascon, John W. Bascon, and Robert C. Bacon. They are

buliding, through the John S. Metcalf Company, an annex of 11 concrete tanks of 55,000-bushels capacity which will give them a total storage space for 1,750,000 bushels.

Munson Bros., who operate elevators at Windsor and Gays, have taken over the elevator and mill property of the Bernhard Milling Company at Strasburg. They acquired the property at a trustee's sale for \$1,500.

A large Government elevator in connection with the program of the Farmers National Grain Corporation is to be erected at Dallas City. The house will be located on the river and have terminal connections with the Santa Fe, C. B. & Q. and T. P. & W. railroads.

Work is proceeding on the new 26 by 109-foot grain elevator which the Standard-Tilton Milling Company is building at Alton. The new house, which will have a capacity of 200,000 bushels, as previously reported, will cost \$65,000. The Stevens Engineering & Construction Company, Landreth Building, St. Louis, Mo., has the contract.

CANADA

George W. Matthews & Co., grain firm at Winnipeg, Man., which went into voluntary liquidation recently, plans to resume business. The company operates several branches in western Canada.

The City of Sarnia, Ont., is trying to dispose of its share in the new 2,000,000-bushel grain elevator erected recently on the waterfront. The city contributed \$400,000 toward the cost of constructing the elevator.

The Halifax (N. S.) Harbor Commission has completed an additional storage unit of 1,100,000 bushels which doubles its elevator capacity. It has also finished 2,400 feet of galleries for transferring grain from the elevator to steamers.

H. L. Price of Toronto, Ont., is promoting legislation for the erection of a 2,000,000-bushel elevator on Catarqui Bay, Kingston, near the 2,500,000-bushel elevator which the Canada Steamship Lines are building. If the legislation goes through, work on the new storage unit will start this spring.

OBITUARY

BECKERT.—Charles Beckert, engaged for many years in the grain business at Pittsburgh, Pa., died April 3 at the age of 85 years. He is survived by his son, Charles Beckert, Jr., (who is conducting the business) and two daughters.

BERKLAND.—Ludwig O. Berkland, of the Berkland Elevator Company, Conrad, Mont., died March 4 of pneumonia. Mr. Berkland had managed a number of elevators in Montana during the past several years.

BINGAMAN.—Lewis L. Bingaman, state grain inspector at Coffeyville, Kan., from 1899 to 1918, died March 23, following an illness of several months. He was 79 years old.

BOOTH.—Thomas W. Booth, assistant manager of the grain department of the Western Canada Flour Mills, Winnipeg, died March 12.

BROWN.—J. Crosby Brown, of Brown Bros. & Co. and veteran member of the Philadelphia Commercial Exchange, died April 1 at his home in Philadelphia.

BURTON.—Alfred George Burton, grain exporter and former president of the Montreal Corn Exchange, died at his home in Montreal on March 21. He was 53 years old. A widow, a son, and five daughters survive him.

DIEHL.—John A. Diehl, retired elevator operator, died March 21 at his home at Marion, Pa. He was 81 years old. He established the J. A. Diehl & Co., which operated elevators at Fayetteville, Green castle, and other points. Three daughters and two sons survive him.

DONALDSON.—Clarence W. Donaldson, grain dealer of Omaha, Neb., died in Kansas City, Mo., at the age of 44 years.

FARMER.—Edward C. Farmer, president of Oscar Farmer & Sons, Louisville, Ky., died March 13 of pneumonia. He was 56 years old. The company was founded by his father in 1885. His widow and four children survive him.

FITZGERALD.—Redmon S. Fitzgerald, grain merchant at Cincinnati, Ohio, took his own life recently.

GLASGOW.—William A. Glasgow, counsel of the Commercial Exchange at Philadelphia, Pa., for many years, died March 14. He was 65 years old.

HAGEN.—Sigurd Hagen, manager of the Federal Elevator Company at Lawton, N. D., was killed

March 14 when he was caught in the elevator shaft. His widow and five children survive him.

HARKNESS.—Howard Harkness, who operated a feed business at Mayville, N. Y., for six years, died March 15 at the age of 58 years. Mr. Harkness retired two years ago and his sons have been conducting the business. His widow, three sons, and a daughter survive him.

KOECHIG.—William Koechig, of Joseph A. Buckland & Co., St. Louis, Mo., died March 29 at the age of 71 years. His widow and three children survive him.

MURPHY.—John L. Murphy, associated for many years with David A. Syme, grain dealer, died at his home in Sycamore, Ill., at the age of 69 years.

HAY, STRAW AND FEED

The Western Grain Company has completed a feed plant at Birmingham, Ala.

Joseph J. Tschetter has installed a 50-horsepower feed grinder at Freeman, S. D.

Hal Williams has installed feed grinding machinery in his plant at Pomona, Calif.

Peck & Larsen plan to expand their business at Laurel, Neb., and manufacture feeds.

The Berne (Ind.) Grain & Hay Company has equipped its plant with a feed mixer.

The Kilkenny (Minn.) Grain Company has equipped its plant with a feed grinder.

The Shell Rock (Iowa) Grain & Milling Company has installed a feed mixer in its plant.

The Pine Village (Ind.) Feed Company has equipped its plant with a new batch mixer.

The Farmers Elevator Company has installed a feed grinder in its plant at Glenwood, Minn.

The opening of a co-operative feed grinding plant at Slayton, Minn., is being considered by farmers in that vicinity. C. M. Johnson heads the group which

Mr. Murphy had also served as mayor of Sycamore, and as president of one of its banks.

McCARTY.—Charles H. McCarty, partner in Stein, Alstrin & Co., brokerage firm, Chicago, dropped dead of heart failure on April 1. He was 60 years old. His widow, a son, and a daughter survive him.

McLANDRESS.—William McLandress, veteran grain and flour dealer at St. Thomas, Ont., died March 25. He was 82 years old.

MENTZER.—Irvin Mentzer, veteran grain and feed dealer, and owner of a feed mill at Franks town, Pa., died at his home there at the age of 75 years.

MOCK.—Aaron B. Mock, engaged in the feed and farm implement business at Martinsburg, Pa., for several years, died March 11 at the age of 77 years. He retired in 1915.

NEEDHAM.—Leonard S. Needham, aged, 67, livestock and grain dealer at Winside, Neb., died recently.

OBERST.—William T. Oberst, who has been engaged in the feed business at Blytheville, Ark., for many years, died recently at the age of 70 years.

RIPPE.—Henry Rippe, veteran grain dealer, died March 23 at his home at Fairmont, Minn. He was 76 years old. Mr. Rippe had conducted the Rippe Grain & Milling Company for 40 years. He had also operated at La Crosse, Wis., and at Brownsville, Minn. His widow and three daughters survive him.

ROWE.—Frederick H. Rowe, president of the Tacoma (Wash.) Seed Company, died recently of heart trouble. He was 59 years old. His widow, a daughter, and a son, Charles, who was associated with him in the seed business, survive him.

SCHMITZ.—Peter Schmitz, veteran grain dealer and member of the Milwaukee (Wis.) Chamber of Commerce for 40 years, died recently at the age of 72 years. A daughter and two sons survive him.

SCHWEINSBERG.—A. J. Schweinsberg, veteran grain and feed dealer of Booneville, N. Y., died at the age of 75 years. The business has been conducted for some time by his son, Ray J. Schweinsberg.

SHEEREN.—John M. Sheeren, grain broker, member of the Chicago Board of Trade, and son of James J. Sheeren, guard since 1882, died March 27 from the result of a traffic accident. His widow and four children survive him.

SLEMBECKER.—Louis Slembecker, secretary of Dennis & Co., Inc., grain commission merchant at Baltimore, Md., died April 4 at St. Joseph's Hospital. He was 48 years old. (See further details elsewhere in this issue.)

STORY.—T. Harry Story, member of the New York Produce Exchange for 45 years, died March 21 at the age of 66 years. His widow survives him.

THACKER.—George Thacker, formerly president of the Matheson Lindsay Grain Company, and member of the Winnipeg, Man., Grain Exchange for 25 years, died suddenly at Santa Barbara, Calif., where he had gone for his health. He was 48 years old.

WATERMAN.—E. D. Waterman, manager of the Farmers Elevator Company at Blairsburg, Iowa, for the past eight years, died March 12 at the home of his daughter at Perry. His widow, two sons, and a daughter survive him.

YERKES.—S. Linford Yerkes, senior member of Yerkes Bros., grain and feed dealers, Philadelphia, died March 11 at the age of 76 years.

is attempting to raise \$3,800 to purchase Henry Braemmer's plant.

The Farmers Elevator Company has installed additional feed equipment in its plant at George, Iowa.

William Scholbrock and Albert Schrandt have established a feed grinding business at Festina, Iowa.

Nelson Woodhead's feed plant at Cambridge City, Ind., has been sold to John Clay, formerly of Chicago.

The W. A. Jenkins Manufacturing Company plans to build a \$50,000 addition to its feed plant at London, Ont.

The Graham (Texas) Mill & Elevator Company has equipped its plant with a new mixing outfit which cost \$16,000.

The Cameron (Mo.) Co-operative Elevator Association has equipped its plant with a corn chop grinder and grader.

The Dean R. Fortman Company has purchased

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the F. A. Marek & Co. wholesale flour and feed business at Cedar Rapids, Iowa, where it will establish its plant and home office.

A half-ton molasses mixer has been installed in the plant of the Oregon Feed & Flour Company, Inc., at Turner, Ore.

The Domas feed grinder at Shelbyville, Ill., was purchased recently at public auction by Mrs. Odell Domas, of Chicago, for \$700.

R. T. Thorne has sold his feed store and mill at Orchards, Wash., to R. J. Blair who was formerly in the feed business in Camas.

The M. & R. Grain Corporation has been incorporated at Indianapolis, Ind., to manufacture and deal in feed for livestock.

The Froedert Grain & Malting Company, Milwaukee, Wis., has opened a new millfeed department, which will be in charge of Clarence Moll.

The Wertz Seed Company, wholesale dealers in feeds and seeds, at Sioux City, Iowa, has purchased the Winner (S. D.) Milling Company's plant.

A. E. Asbury is erecting a frame and corrugated iron building at Higginsville, Mo., for his feed business. J. Johnson will be interested with him.

The Finnegan & Russell Feed Company, Vancouver, Wash., has filed articles of incorporation for changing its name to the Superior Feed Company.

The L. & G. Feed Company has acquired the Sunshine Feed Store at Mendota, Ill. The company

has stores also at Sterling, Rockford, Dixon, and Princeton.

The Taylor Grain Company, of Van Alstyne, Texas, has converted its flour mill into a feed mill and will manufacture millfeed, poultry, dairy, and hog feeds.

The Ady & Crowe Mercantile Company has increased the capacity of its feed plant at Denver, Colo., to five cars daily. The company is building a plant at Sterling.

Farmers and local elevator managers in the vicinity of Sheldon, Iowa, are considering the advisability of opening a co-operative commercial feed mixing plant at Sheldon.

The Allied Agricultural Association, Inc., plans to establish a chain of feed stores in western Oregon, with main offices in Salem and with a central plant for the manufacture of poultry and livestock feeds.

The Producers Warehouse & Elevator Company, subsidiary of the Grange League Federation, has completed a 90-bin feed plant at Buffalo, N. Y. The six-story re-inforced concrete warehouse has a capacity of 185,000 bushels.

The Washington Co-operative Egg & Poultry Association recently took over the Spokane (Wash.) Poultry Farmers Association and plans to double the capacity of the plant. A new addition, 50 by 90 feet, will be equipped with new machinery which will increase the capacity from 25 to 50 tons of poultry feed every 24 hours.

20, causing an estimated loss of \$30,000. A considerable quantity of grain was destroyed.

Montague, Mich.—The elevator and mill of the Montague Roller Mills burned March 29, causing an estimated loss of \$25,000, covered by insurance.

Indianapolis, Ind.—The Farmers Co-operative Company's plant, together with a quantity of grain, was destroyed by fire, causing a loss of \$50,000.

Davenport, Wash.—A high wind blew down a 50,000-bushel grain tank of the Davenport Mill & Grain Company's plant. Loss is estimated at \$750.

Alden (Bridgeport p. o.) Neb.—The grain elevator at Alden, owned by the Nebraska-Colorado Grain Company, of Sidney, burned to the ground on March 19.

Campton, Ky.—Fire, which destroyed a large section of the business district of Campton on April 5, burned the J. H. Stamper feed store, causing a loss of \$5,000.

Cutknife, Sask.—Fire destroyed on March 26 the elevator of the Searle Grain Company, 11,000 bushels of wheat, 1,000 bushels of oats, and a box car. Estimated loss is \$25,000.

Clear Lake, S. D.—Fire destroyed the Farmers Elevator, containing 15,000 bushels of grain, on March 6. Estimated loss is \$20,000. The house is to be rebuilt this spring.

Walcott, N. D.—The house of the Equity Elevator & Trading Company was destroyed on March 20. About 20,000 bushels of grain were burned. The building was insured for \$10,000.

Rockyford, Alta.—A large fire which broke out in the business district of Rockyford damaged the Alberta Wheat Pool Elevator and annex and burned a considerable quantity of wheat.

Oklahoma City, Okla.—Fire destroyed on March 20 the large hay barn and other buildings of the Alfalfa Products Company, as well as five cars of feed. Estimated loss is \$3,500. The structures will be rebuilt.

Southport, Ind.—Fire destroyed the elevator and warehouse of the Farmers Co-operative Company, causing a loss of \$50,000. A large quantity of grain was destroyed. The house is to be rebuilt soon, according to J. J. Riser, manager.

FIRES-CASUALTIES

Keighley, Kan.—Fire destroyed the elevator of J. W. Craig on March 19.

Ambrose, N. D.—William Gehrke's elevator was destroyed by fire on April 1.

Camargo, Ill.—The elevator of Hall & Spellman was destroyed by fire on April 5.

Oklahoma City, Okla.—Fire destroyed the steel elevator of General Mills, Inc., on April 9.

Arkport, N. Y.—Fire destroyed on March 22 the warehouse of J. H. Colgrove Company, Inc.

Henriette, Minn.—Fire destroyed the Hoflin feed and flour warehouse together with stock valued at \$1,500.

Dodgeville, Wis.—Fire damaged the feed store and warehouse of D. D. Lewis, causing a loss of \$12,000.

Sapulpa, Okla.—Fire damaged the Sapulpa (Okla.) Feed Store to the extent of \$1,200 on March 8.

Edgeley, N. D.—Fire which started in the cupola destroyed the elevator of the Wells Grain Company on April 8.

St. Mary's, Kan.—Fire destroyed the warehouse of the Farmers Union Co-operative Business Association on April 5.

Danube, Minn.—The Empire Grain Elevator, containing a large quantity of grain, burned to the ground recently.

Yeoman, Sask.—Fire destroyed the grain elevator of the Federal Grain, Ltd. About 10,000 bushels of wheat were burned.

Junction City, Wis.—Fire damaged Jacob Skibba's warehouse and his stock of flour and feed, causing a loss of \$2,000.

Kincaid, Ill.—Fire caused by defective wiring caused considerable damage to the plant of Otto T. Young & Co. on April 8.

Rannock (St. Mary's p. o.) Ont.—Fire destroyed the grain elevator of C. E. Nourse & Co. on March 19, causing a loss of \$30,000.

Royal, Iowa—Fire destroyed the W. A. Burmeister building which contained a feed store and hatchery. Loss is estimated at \$15,000.

Evan, Minn.—Fire caused by an internal combustion engine destroyed the elevator of the Morgan Grain Company on March 10.

Brinsmade, N. D.—The property of the Farmers Elevator Company was destroyed by fire, causing a loss of \$25,000, covered by insurance.

Hitchcock, S. D.—Fire recently destroyed the Van Dusen grain elevator. Two cars of wheat and flax, and three cars of coal were also burned.

Emerson, Neb.—The grain elevator of Henry Enright was totally destroyed by fire recently. Several hundred bushels of oats were burned.

Armour, Neb.—Lloyd O. Ruyle's elevator, containing 10,000 bushels of grain, was destroyed by fire April 7. An overheated engine bearing caused the fire. Estimated loss is \$4,500, partially covered by

insurance. A modern elevator will replace the old structure.

Mansfield, Ohio.—Fire damaged the elevator of the Cleveland Grain & Milling Company on March

FIELD SEEDS

PORTABLE CLEANERS TO BOOST SEED QUALITY

A portable battery of six large seed-cleaning units will be constructed this summer in Edmonton, Alta., Canada. Co-operative organizations, the federal, and provincial governments will share in the expense.

Government assistance is being given to a district seed-cleaning scheme of this kind, rather than to a large central plant, because it is thought to have greater advantages for the wheat growers at large, one of the most important being the saving in freight charges. The need of a very large central plant in this province has not yet arisen, it is claimed, and all present requirements will be met by the plan now proposed.

The portable seed cleaners will cost nearly \$2,000 each.

CANADA'S REGISTERED SEED SYSTEM

What is registered seed? Registered seed in Canada may be defined in very exact terms; it is the highest grade of seed obtainable. It is seed of good variety with a recorded ancestry, and possesses a very high degree of varietal purity. In addition it is practically free from weeds and other impurities, viable, well cleaned, graded and sealed according to the requirements of the Dominion Seeds Act.

Only varieties of outstanding merit are accepted for registration. Registered seed is, therefore, of an approved variety, and represents the highest grade of seed recognized by statute in Canada. It is sold only in sealed containers which assures the purchaser of its trueness of name, purity and quality.

The Dominion Seeds Act classifies registered seed into three grades as follows: Registered 1, Registered 2, and Registered 3.

Growers and prospective growers are recommended to apply to the District Seed Inspector of their respective province for a copy of the Dominion Seeds Act, with amendments to date. Here will be found the requirements of germination and the standards of freedom from weeds and other varieties to which the threshed seed will have to be

cleaned before it can be sealed in the sack by the inspector.

The connecting link between the Canadian Seed Growers' Association and the grower is the Dominion Seed Branch Inspector who examines the crop and who finally examines and seals the seed in the sack. These inspectors are men of special technical training and ability, and have the interests of the Association and of the growers at heart. Growers are, therefore, advised to seek all the assistance they can from these inspectors in the way of advice in their work.

Grade names Registered No. 1, Registered No. 2 and Registered No. 3, applicable to seed produced from a registered crop have been established under the seeds act. The definitions of these grades are based on such factors as quality, purity, vitality and physical appearance of the seed, and, when approved by the Minister, they are included in the regulations under the act.

Other provisions of the act and regulations make it necessary that before seed can be legally sold under one of the registered grade names it must be sealed in the container by a Dominion Seed Branch Inspector, with a seal approved by the Minister, to protect the seed inspection certificate tag, also affixed thereto by the inspector. The face side of this tag bears the name and address of the seller, the name of the kind and variety of seed, the seed inspection certificate number, and the grade name; the opposite side, the place of production, the Canadian Seed Growers' Association crop registration certificate number, the generation from elite stock seed and the signature of the inspector. Under the Seeds Act the inspector is wholly responsible for the quality of the seed, apart from its breeding and selection. The Canadian Seed Growers' Association establishes the standards of purity of variety, and is responsible for the crop registration certificate issued by that Association. At the time, however, of making an inspection of the cleaned seed, the inspector endeavors to determine, insofar as it is practicable for him to do so, that the seed graded and sealed by him does conform to the standard of purity of variety established by the Association.

Application for inspection, grading and sealing of the cleaned seed, must be made to the office of the

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District Inspector for the seed branch. When applying for inspection of cereal seeds, the grower should forward a two-pound sample of his seed for test. When tested, a control sample certificate, based on the sample received, is sent to the grower, which indicates to him the number and nature of impurities found per pound in the sample, the percentage of germination and what further cleaning, if any, will be necessary before the seed can be awarded a registered grade. When this procedure is followed and the inspector finds the bulk lot of seed to be of a quality comparable to the sample submitted for test, he is usually in a position to grade and seal the seed in the sack on the occasion of his first visit, and at the minimum of expense to the grower. When, however, the germination of oats, barley or other kinds of seed is suspected of being uncertain or variable, because of seasonal or

other conditions, the inspector may deem it necessary to have a re-test made on a sample or samples drawn by himself before giving the final grade which is based on samples drawn, examined and graded by himself or under his direction, together with other necessary information concerning the seed lot furnished by the crop registration certificate.

in other areas. He has computed that the annual loss from weeds in this state is around \$46,000,000, or an average of about \$240 for every farm in Wisconsin.

* * *

The state seed laboratory of Wisconsin in the Agronomy Building at Madison is very busy these days testing the large number of samples of seeds that are coming from every corner of the state. More than 100 samples of seeds are coming in every day for testing purposes.

* * *

The test is made for cleanliness, for purity and for seed germinating power. Records of the number received showed that up to a recent date this spring some 3,900 samples of these seeds had been received as compared with 2,535 received by the same date a year ago. The service has thus increased more than 50 per cent in a single year and is becoming more popular than ever before.

The state law requires that all seeds sold in the state must be labeled with the name and the kind of seed, the name of the seller, the purity, the germination percentage and in the case of alfalfa, corn and small grains the locality in which it is grown.

The extent to which the seed handling of Wisconsin has been systematized has been shown in Monroe County this spring where one day was set aside for the testing of seed corn in the entire county. The teachers of the county and the Wisconsin College of Agriculture co-operated in the tests held.

HIGHER YIELDING SEED CORN

Corn breeders know that the cause of failure to secure seed corn which will breed true and produce plants that are all as good as the particular stalks from which the seed was taken is largely the inability of the farmer to select the male parent (pollen) of the ears he has selected for seed. It is like a dairyman trying to increase the quality of his herd by selecting heifers only from the best producing cows, but at the same time allowing a scrub bull to run loose with the herd. Wind borne pollen from good corn, mediocre corn and poor corn is the "scrub bull" that is constantly interfering with the farmer's efforts to build up a strain of corn that is devoid of "boarder stalks."

Using a new process of corn breeding there was started at the University of Wisconsin, six years ago, a project, the purpose of which was to produce higher yielding new strains of corn within the standard varieties of the state. This new corn was also to be highly resistant to cold temperatures, particularly the unfavorable cold wet weather sometimes occurring in Wisconsin immediately following corn planting time. Then, too, it was desired that these new strains be resistant to corn diseases such as seedling blight and ear mold that are frequently responsible for large crop losses. Finally the new corn must be strong rooted so as to withstand heavy rains and the beating of windstorms.

The results of this research program are only partly concluded; the work is still in progress, but already there have been developed strains which measure up remarkably well to the high standards outlined at the beginning. It is expected the stage will soon be reached where farmers in various parts of the state who have made a recognized success of seed corn production will be invited to co-operate in testing the new strains.

In the new breeding program selected plants within the standard varieties, i. e., Golden Glow, Silver King and other Wisconsin varieties, were inbred one year after another until they now produce stalks one like the other, and all possess the desired characteristics. Inbreeding is accomplished by taking the pollen from the tassel of the stalk it is de-

BUYERS SELLERS

BAG LOTS or CAR LOADS

MANGELSDORF MERIT FIELD SEED

Alfalfa - Clovers - Redtop
Timothy - Blue Grass
Grasses - Cowpeas
Soybeans - Sunflower
Seed Corn - Other Field
and Grass Seeds

We are located in the center of one of the largest producing areas for numerous field and grass seeds. All our seeds are supervised and standardized by modern laboratory methods and thoroughly cleaned in our own plant—tested for germination and purity. The advantageous location of our large and modern equipped plant with exceptional facilities for both shipping and receiving, enables us to quote best prices.

Whether Buying or Selling
Get Our Prices—Prompt
Service

ED. F. MANGELSDORF & BRO.
Wholesale Field and Grass
Seeds
ST. LOUIS, MISSOURI

One of the seed handlers of Milwaukee said that the seed market had been maintained at steady levels for the last 30 days except that there has been an advance of about \$1 in the alsike and in the Red Clover seed market. He reported, too, that there has been a vigorous demand for seeds in almost all lines and that the prospects are for a record volume of seed trade this season.

A shortage of commercial seed corn for 1930 is being felt both in Iowa and in parts of Illinois, according to A. W. Wright, agronomist at the college of Agriculture at Madison, Wis. Mr. Wright says that the shortage of good seed corn in several of the states of the Northwest is likely to have a decisive effect on the market. This shortage, too, he added, will help to move out the heavy carryover of seed corn in Wisconsin from last year. He reported further that the germination tests of seed corn in Wisconsin had been running very high this spring and that this will help still further to stimulate the demand for Wisconsin seed corn.

Something new is being tried out in Wisconsin to increase the production of Alfalfa and that is the application of paper mill sludge as a fertilizer for this crop. Aton Miller, near Kaukauna, is trying out this experiment with 100 tons of the sludge which he is applying to his land at the rate of three to four tons an acre. In addition he plans to use from 300 to 400 pounds of phosphate per acre. Mr. Miller lives in a belt of the state where there is very heavy clay soil and he has tried out various methods of increasing his Alfalfa yield.

A. L. Stone, in charge of the state weed and seed laboratory at Madison, is starting on his new plans this year for combating weeds in seeded plots and

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sired to inbreed and placing it upon the receptive silks of the ear on the same plant.

During the inbreeding process thousands of lines were tested, but by the rigid standards used all but the very best were eliminated. Ears were saved only from cold resistant, disease resistant, vigorous plants, which were inbred again, and the same painstaking selection and rejection program followed. These inbreds are not adapted for use in commercial corn production because the inbreeding process decreases the size and vigor of the plants and reduces the yield.

When two inbred lines are crossed it is found that the vigor of the resulting hybrid usually is equal to that of the original parent stock before being inbred. Certain inbreds have the unique quality when crossed of producing offspring even superior to the original parents, and they also retain for the first generation hybrids all the uniformity secured in the inbreeding process.

Hundreds of inbred lines have been discarded because they failed to combine in such a way as to produce hybrids possessing the desired improvements over the original parent stock.

A few hybrids have been found which have consistently given a performance record significantly better than the best seed of the standard variety from which they were originally produced. The stalks are very uniform in size and type, and every stalk produces an ear. Each ear is remarkably like every other ear. Resistance to cold temperatures and to diseases is superior to that of any of the strains now grown in the state.

Before the university can recommend the use of the new hybrids by farmers careful tests of the new corn over a period of years under the varied soil and climatic conditions of the state are required.

THE TOLEDO SEED MART

By S. M. BENDER

Red Clover seed has shown strength during the past month ruling sharply higher in the market at Toledo, Ohio. New crop futures have led the advance showing unusual strength at times. Dealers are reporting a brisk cash demand and expect it to continue for a few weeks if the weather permits.

The season was late in getting started and many were prolonged on that account. Deliveries were fairly liberal on March contracts and stocks at the end of the month were considerably smaller. At prevailing prices there should be an excellent demand for Clover this year. Substitution of Alfalfa and sweet

Clover should be small as compared with previous seasons, especially as alfalfa is extremely high. The price ought to be attractive and an incentive for farmers to increase their clover acreage. Offerings of October and December have been small while the demand remains brisk. Most of the buying is based on prospective exhaustion of stocks and crop damage reports through the clover belt states.

Most of the recent deliveries went into strong hands and were shipped out to meet requirements of the retail trade. October sold at \$12.50 which was the first trade in this future. Increased offerings of both October and December have been noted around present levels. Last year the first trade in October was made early in August at \$14. It ranged from \$14.75 in August to the low of \$11.10 in October, expiring at that price. December ranged from \$14.75 in August to the low of \$10.75 in November expiring at \$11.10.

Alsike has shown marked strength with offerings and good investment and retail demand. Some deliveries were made on March contracts and went into strong hands. Local stocks are light.

Timothy has been firm with a better demand for old and new prime and local stocks decreasing rapidly. Present prices are considered fair enough considering market conditions.

INDIANA SEED NEWS

By W. B. CARLETON

Both wholesale and retail seed dealers in Indiana report there has been some improvement in trade during the past several weeks and most dealers say their volume of business has been considerably larger than it was during the corresponding period of last year. Indications point to a good live trade for the next several weeks. At a meeting of banking and agricultural interests held in the city of Evansville early in April arrangements were made to finance the farmers in the Wabash valley, whose losses during the floods last winter were heavy. Many of these farmers will be placed on their feet so they can raise their usual amount of corn and other crops during the coming season. Reports from many sections of the state indicate the farmers are planning to put in bumper crops this year.

Charles Kinderman, retail seed dealer at Boonville, has returned home from Florida where he and his wife have spent most of the past winter.

Harley E. Craig, who for a score of years was

engaged in the mercantile business at Otwell, has closed out his business and has announced he will go into the seed buying business on a large scale.

Joseph T. McClaran, proprietor of a feed store bearing his name in Corydon, also a handler of seeds, has opened a new feed and seed store at 115 West Main street, New Albany, Ind., the new store being in charge of his son, Weldon. The new store is modernly equipped and carries a large stock.

Herman Helfbein, county agricultural agent of Pike County, has warned the farmers to make a thorough test of their seed corn before planting, as much of the corn being tested by him is unfit for seeding purposes. Only the very earliest planted corn last year matured, and seed corn in Pike County, as well as adjoining counties is scarce at this time. Wyatt's seed and feed store at Petersburg, has furnished the seed corn for planting 200 acres on the famous Graham farm in Daviess County, a few miles north of Petersburg. This farm is owned by Graham Bros., automobile manufacturers of Detroit and Evansville.

J. A. McCarthy, of the J. A. McCarthy Seed Company at Evansville, with branch stores at Vincennes and Terre Haute, reports his trade has been fairly satisfactory during the past month or two.

Many of the farmers in southern and central Indiana are planting soy beans this year. They report this is one of the most profitable crops that they can grow. Indiana farmers also are increasing their acreage of Alfalfa. In southern Indiana last year many of the farmers had as many as five cuttings.

UNSEASONABLE WEATHER RETARDING SEED TRADE

General seed trade slowed down somewhat during the week ended March 29, largely on account of the severe storm which left a large part of the Middle West covered with snow, according to information obtained in principal markets by the United States Bureau of Agricultural Economics released this month. Demand was more active for the Clovers and grasses than for the forage crops or late-sown kinds. Prices were generally firm. Exports were of good size while arrivals were rather light.

Early in March the general seed trade responded to favorable weather conditions but made slow

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progress the first two weeks, then the busiest week of the year was experienced. Price changes kept within narrow range during the month, and advances largely offset declines. Red clover and Alfalfa advanced about 5 cents per 100 pounds during the month while Sweet Clover declined a like amount. Among the grasses, Redtop advanced 5 cents; Timothy, 10 cents; orchard grass, 15 cents; and Italian ryegrass, 25 cents.

SPRING SEED TRADE IN NEW YORK

By C. K. TRAFTON

Weather conditions during the period marking the transition from winter to spring were not as a rule quite as satisfactory as might be desired, being generally more wintry than spring-like with a very severe blizzard covering a wide area at one time. Nevertheless, developments in the local seeds market were rather favorable than otherwise, especially when taking into account the wide-spread complaints of extreme dullness in many other lines of business.

However, the contention that seeds are a vital necessity and not a luxury such as are so many other commodities and that farmers would be forced to secure their supplies regardless of conditions elsewhere were more definitely confirmed as time progressed. Early in the period distributors were very busy shipping out a general line of seeds on old orders for March delivery, while new business was very slow because of the cold weather. Later the blizzard stopped buying for mid-western account almost entirely, but otherwise there was a steady improvement in new business which covered a complete line.

Red Clover has been the leader, as usual, in the spring movement, but this applied almost exclusively to the domestic variety, partly because of its fine quality and partly because of its unusually small premium over the foreign variety. The domestic, as a consequence, developed greater firmness and is a half cent higher at 20½ cents, while the imported, which was almost neglected is nominally unchanged at 16 cents duty-paid.

Alsike was also a half cent lower temporarily as liberal stocks induced some pressure to sell spot goods. At the lower basis, 19½ cents, a fair flurry of buying developed and the former 20-cents basis was reestablished.

Timothy was firmer at one time, being a half cent higher at eight cents because of the scarcity of nice qualities and increasing evidence that very little seed remained on the farms.

SEED LOANS TO BE MADE SOON IN FOUR REGIONS

Loans to farmers in storm, flood, and drought-stricken areas of the United States, for seed, feed for work stock, and fertilizer for 1930 crops, will be made by the United States Department of Agriculture under the authority of a resolution passed by Congress and approved March 3, 1930, a fund of \$6,000,000 having been provided in the Deficiency Act approved March 26. This announcement was made this month by Dr. C. W. Warburton, director of extension work, and chairman of the advisory seed loan committee of the department.

The resolution authorizes the making of loans in areas of 15 states, where the Secretary of Agriculture finds need for such assistance exists.

For the prompt handling of applications four field offices are being established at widely separated points. Applications for loans from Virginia, North Carolina, South Carolina, Georgia, Alabama, and Florida, will be received at the Farmers Seed Loan Office, Columbia, S. C.; those from Ohio, Indiana, Illinois, Missouri, and Oklahoma, will be handled at a similar office in the old Custom House, St. Louis, Mo.; those from Montana, North Dakota, and Minnesota from an office at Grand Forks, N. D., and those from the flood areas in the Rio Grande Valley in New Mexico, from an office at Albuquerque, N. M. The necessary forms have been printed and are now being distributed to committees in the counties in which loans are to be made.

L. Emory White, who handled the appropriation for loans in the southeastern states last year, has been given general supervision of the operations. J. H. Lynch, who was associated with Mr. White in the Columbia (S. C.) office last year, will be in charge of that office, from which it is expected that the larger part of the fund will be loaned. The St. Louis office will be supervised by T. Weed Harvey, of the office of co-operative extension work; that

in Grand Forks by O. S. Fisher, also of the office of Co-operative Extension Work, and that in Albuquerque by J. W. Park, of the Bureau of Agricultural Economics. Advances to borrowers will be made from each of these offices by temporary special disbursing agents assigned by the department for that purpose.

The Knauf & Tesch Company has installed new cleaning machinery in its plant at Chilton, Wis.

The Funk Bros. Seed Company has installed a Fairbanks Portable Dial Scale in its plant at Bloomington, Ill.

The Farmers Seed & Nursery Company has installed a new Carter Disc Thistle Mill in its plant at Faribault, Minn.

A 70-bushel churn mixer for treating seed oats and barley has been installed in the plant of the Farmers Elevator Company at Paulina, Iowa.

The Northland Seed Company has completed a new warehouse at Sidney, Mont. It has a capacity of 30 carloads. A separator for alfalfa seed, and a new feed grinder have been installed.

W. A. Jenkins Manufacturing Company, London, Ont., will receive bids the latter part of the month on a four-story 70 by 110 foot seed cleaning plant. The new plant will cost approximately \$50,000.

The Foster-Martin Seed Company is the name under which the purchasers of the J. E. Rogers Seed Company at Houston, Texas, are operating. The new owners are W. E. Foster, John Martin, and associates. The company will specialize in seeds, fertilizer, etc.

Contract has been awarded to the McMillan Construction Company for the erection of a new plant for the Reuter Seed Company at San Benito, Texas. Construction work has already started on the building which will be 50 by 140 feet and will cost about \$15,000. With the completion of the new structure in June, the company will have three times its present floor space.

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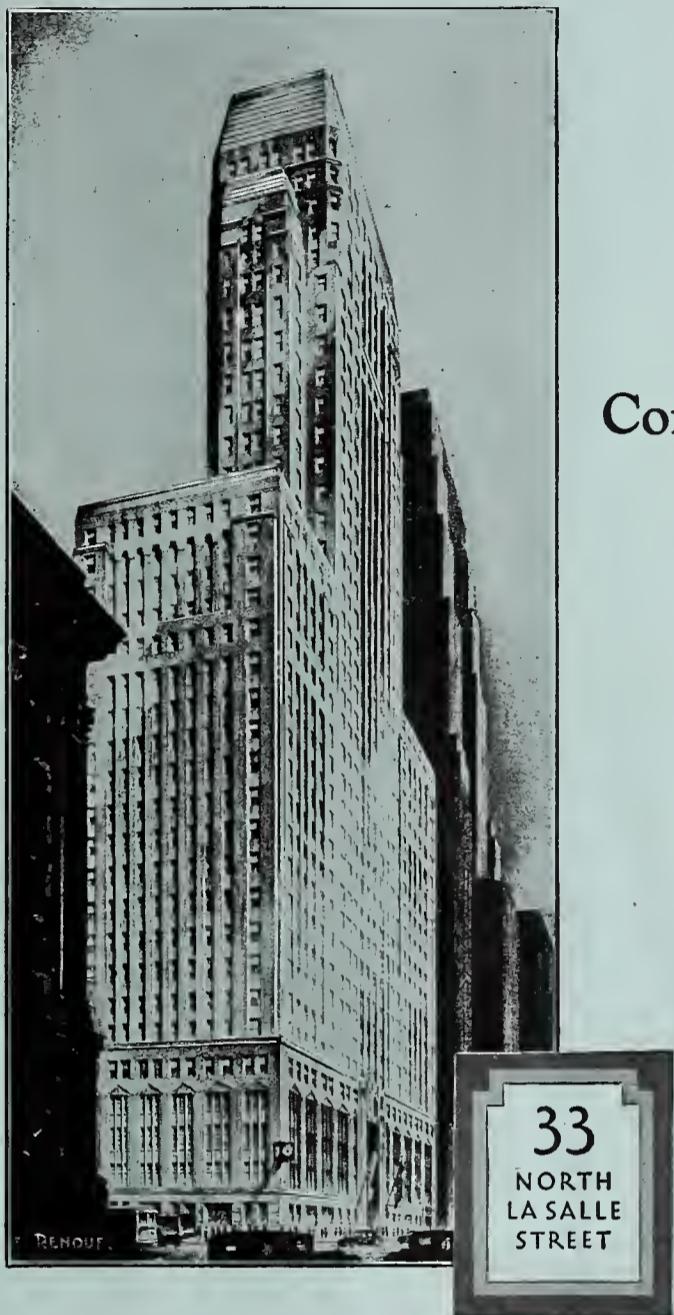
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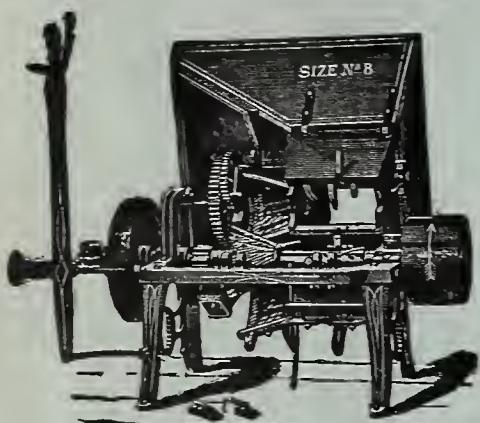
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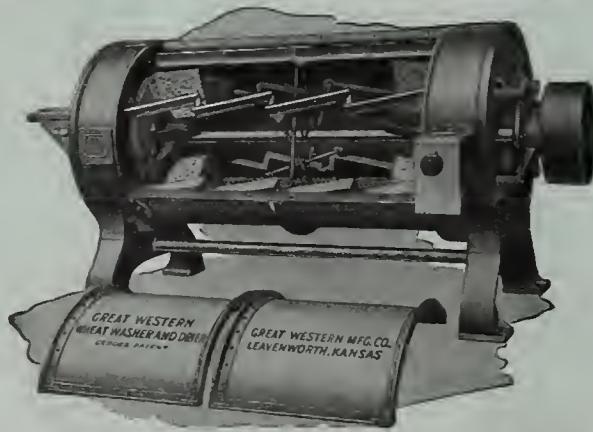
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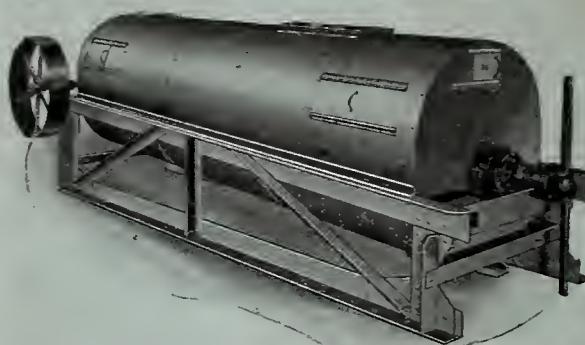
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